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The School of Medicine, University of Kansas.

Remarks on the Report of the Efficiency and Economy Committee.

Chancellor FRANK STRONG.

The School of Medicine of the University of Kansas has grown in precisely the same way that all other departments have grown. The act of the legislature approved March 1, 1864, accepting the seventy-two sections of land set apart and reserved by act of Congress, January 1, 1861, for the use and support of a State University not only provides for the establishment of the University of Kansas at Lawrence but names the department of medicine as one of the departments that shall be established at the University. It began with one year of medicine, as will be noted in the catalogs of 1880 and 1884 and 1885 in which the establishment of a full department of medicine is forecast. The College of Liberal Arts began in a precisely similar way, its first work being practically of preparatory grade covering about one year. In a similar fashion the School of Engineering, the School of Law and other divisions of the University were begun.

The first course in medicine was the first of a three-year course. In the year 1898-99 the School of Medicine was organized by the Board of Regents, with S. W. Williston, Dean. The course at the same time was extended to cover the first two years in medicine. In the year 1902-3 Clarence E. McClung, Associate Professor of Zoology, was made Acting Dean following the resignation of S. W. Williston. In the year 1903-4 the degree of Bachelor of Arts in Medicine was authorized through a combination of the work of the first two years of the medical course with the freshman and sophomore years of the College of Liberal Arts, the purely medical work remaining a two-year course. In 1905-6 the course was extended to cover four years, with Clarence E. McClung, Acting Dean of the Scientific Department, and George H. Hoxie, Dean of the Clinical Department. The Clinical Department was established in accordance with an act of the legislature of 1905, at Rosedale, Kansas, and in the School of Medicine of the University of Kansas were merged the Kansas City Medical College of Kansas City, Mo., founded in 1869; the Medico-Chirurgical College of Kansas City, Mo., founded in 1896; and the College of Physicians and Surgeons of Kansas City, Kans., founded in 1893. These colleges merged with the School of Medicine of the University of Kansas with the understanding and promise that the new school would be permanent and that their existence would thereby be continued indefinitely. By act of the Board of Regents the alumni of the three named were incorporated in the alumni of the University of Kansas and given all the rights and privileges of such alumni. In the year 1913 the Kansas Medical College and Medical Department of Washburn College at Topeka was also merged in the School of Medicine of the University of Kansas under the same agreement and promise and its alumni

were incorported in the alumni of the University of Kansas with all the rights and privileges of such alumni. These mergers were made after long and careful consideration and on the full assurance that such action would be to the best interests of the great profession of medicine, not only in Kansas, but throughout the Southwest. The University and the State undoubtedly will not repudiate this obligation.

These mergers as noted were the direct outcome of an act of the legislature of 1905, as follows:

CHAPTER 396.

University of Kansas to Accept from Dr. Bell, Lands for Hospital and Clinical School.

Senate Bill No. 203.

An Act authorizing the Board of Regents of the University of Kansas to accept from Dr. Simeon B. Bell, of Rosedale, Kan., certain lands for the purposes of a hospital and clinical school of medicine of said University.

Be it enacted by the Legislature of the State of Kansas:

Section 1. That the Board of Regents of the University of Kansas is hereby authorized to accept from Dr. Simeon B. Bell, for the purpose of a hospital and clinical school to be used in connection with the school of medicine of the University of Kansas, the following described real estate, situated in Rosedale, Wyandotte County, Kansas, to wit: (Now follows description of land.)

The property thus conveyed included 101 lots in the City of Rosedale and a tract of about 7½ acres to be used as a site for the clinical school of the School of Medicine. Under two contracts made with the Board of Regents and Dr. Bell, this property is to be used for a clinical school and a hospital. All this was carefully explained to the legislature of 1905. There was long continued and warm discussion of the whole proposition. The bill passed both houses by large majorities, and in due time was signed by the governor, Honorable E. W. Hoch, now a member of the Board of Administration. Before this bill was presented to the legislature, the Chancellor and Board of Regents of the University had given long consideration to this whole question and had sought the experience of other institutions and had advised with people authorized by experience and ability to speak, and had concluded that it was not feasible to establish a clinical school in the City of Lawrence; that Kansas City was then and would be still more in the future, one of the greatest clinical centers, and one of the most important places for the establishment of a clinical department in the whole United States. It was because of this consideration that the medical schools in Kansas City, Mo., and Kansas City, Kans., named above, were willing to merge their existence into that of the new clinical department of the School of Medicine of the University of Kansas.

Dr. Simeon B. Bell made an additional gift of property worth $25,000.00 for the use of the School of Medicine on the understanding and contract that the school was to be perpetual. The total value of his gifts was about $90,000.00. Since that time the following gifts to the School of Medicine and haspital have been made:

1. 1915, by Marshall A. Barber, lots in Rosedale, $5,000.00.

2. 1915, the Simeon B. Bell heirs, lots in Rosedale, $2,500.00.

3. 1915, Mrs. Stewart, piano for nurses' home, $200.00.

4. 1915, the John L. Porter Estate (estimated $30,000.00).

Since 1905 every budget presented to the legislature has contained an apportionment for the School of Medicine. This apportionment has been thoroughly discussed and explained at the sessions of every ways and means committee. It has therefore been acted upon and authorized every two years since 1905. In 1911 it was made a separate section in the University appropriation bill. At this session the Chancellor of the University asked definitely the chairman of the Ways and Means Committee of the House the atti-

tude of the committee and the legislature in regard to the whole question of the School of Medicine, whether it was the desire of the committee and legislature that the school should be continued. The answer was in the affirmative and the specific section already noted was included. The same question was considered by a joint sub-committee of the ways and means committees of the senate and house, as was also the question of possible removal from Rosedale to Kansas City, Kansas. This sub-committee was (as I recall) unanimous in opposition to removal from Rosedale and in favor of continuing of the school. In 1911 the legislature passed three acts (Chapters 292-293-294, Laws of Kansas, 1911), the first providing for hospital treatment and surgical aid for crippled children at the hospital which is named a state hospital conducted in connection with the School of Medicine of the University of Kansas, the second providing treatment in similar manner for the indigent poor of Kansas, and the third providing hospital care in like manner for certain obstetrical patients. These laws and the School of Medicine itself with its hospital received prolonged consideration on the part of the committees and the legislature. Under the acts named, especially the act on behalf of crippled children, a large amount of important work for the benefit of the state has been done. In 1913 the question of the School of Medicine and appropriations therefor was given the most searching consideration by the ways and means committees. Several of the most eminent medical men in the country appeared before the committees and after long continued and frank discussion satisfactory appropriations were made. This same legislature of 1913 (as is noted in Chapter 350, Laws of Kansas, 1913) fully investigated the affiliation of the State Board of Health and the School of Medicine of the University of Kansas, by which a unique and epoch making arrangement was entered into constituting one of the most important movements for preventive as well as professional medicine known to our country. The approval of the committee investigation was nearly unanimous and given in very positive terms.

In other words, the School of Medicine, of all of the departments of the University of Kansas, has received the most searching investigation and the most thorough and undeniable approval. This approval has been more than justified by the development of the school itself, whose work has grown in excellence until it is in Class A in the classification of the American Medical Association. Its entering class for the present year is 58, one of the large entering classes in medical schools in the United States. Its total enrollment for the year ending June 30, 1916, was 136, including the school for nurses. (On November 1st of the current year the number was 134, and the enrollment by the end of the year will be considerably above the enrollment of the year ending June 30, 1916.) In 1910-11 the enrollment was 99, in 1911-12, 95. The enrollment in 1912-13 was 89; 1913-14, 129; 1914-15, 135.

From the standpoint of the state itself, the School of Medicine now constitutes one of the most important of the professional schools of the University. In my opinion, in twenty-five years the School of Medicine will be regarded as the most important of the professional and technical schools of any state university. The rapid development of knowledge of public health and of the agencies for preserving public health make it plain that this matter is one of vital importance to the state and it seems beyond controversy that a state in its organized form will find it necessary to have linked together under its immediate control the agency that stands for the development of high standards of medical education, scientific research and public hospital and dispensary facilities, and the agency of preventive medicine and public health, the first being represented by the School of Medicine supported and controlled by the state, and the second by the state board of health

supported and controlled by the state. In my opinion the State of Kansas will not nullify the tremendous advance that has already been made and render of small value the most important agency that the state has in the development of the physical soundness of its population, upon which wealth production and material and moral prosperity are based.

With very few exceptions all schools of medicine have a four-year course. Good examples of this are California, Oregon, Colorado, Oklahoma, Nebraska, Minnesota, Illinois, Michigan, Ohio and Iowa. Some universities give but two years to the course in medicine, but in nearly every instance this is due to the fact, as stated in their catalog, that sufficient clinical facilities are not yet available. In most cases it is clearly recognized to be a disadvantage to have to confine the medical course to two years, partly for the reason that students desire to finish where they begin their course. At the University of Wisconsin the medical school is of comparatively recent establishment and adequate facilities are not readily accessible. Two years of work only are given. What the experience of Wisconsin with the partial medical course will be, and whether the university may not find it wise to add at some convenient place the last two years of the course, is still a question. At the University of Missouri two years of work only are given, but in this case the great clinical centers of Kansas City and St. Louis are both occupied by medical schools adequate to the demand in this part of the south and southwest. In addition, the University of Missouri sought diligently by affiliation to complete its medical curriculum, and only a combination of unfortunate and unlooked for circumstances prevented. It is not too much to say, therefore, that overwhelming experience points to the completion of the medical course wherever possible.

The work in medicine in its beginnings antedates work in pharmacy, education, university extension, the summer session, and came only a few years after the establishment of courses in law, engineering, fine arts and the college of liberal arts. There would seem to be no reason, therefore, for the State of Kansas to shift from its own shoulders the responsibility in regard to work in medicine. To do this means that Kansas would force an important class of its citizens to the extra cost of securing their professional training outside the state, while others received their professional training at the hands of the state, and would partly shift the expense of training its children to the shoulders of other states or to private individuals, for never does the tuition paid by a student meet all of the present expenses of a professional education. That it would be an injustice and social and economic mistake to force the youth of a state outside its boundaries for any considerable part of their education is, in my mind, beyond controversy. Not only do those who are forced outside for their education carry with them in cash each year large sums of money, which are spent outside the state, but they form connections outside the state and cease to be citizens of Kansas. There is no better way of helping to depopulate the state of citizens of the highest intellectual value than to force them outside for their education.

It is true that there are large and important schools of medicine in other parts of our country to which a candidate for the degree of Doctor of Medicine might resort, but there are also great colleges of liberal arts, law, engineering, and the rest within as easy reach as are the great schools of medicine. There is just as much reason for forcing out of the state the youth of Kansas who desire a college training or courses in law, engineering, fine arts, pharmacy and education, as there is to force them outside for work in medicine. Why not, therefore, send all the youth of the state outside for higher education, and thus save great expense to Kansas and cast upon the shoulders of outsiders completely the cost of educating our children? But we have been told many times, and there is much truth in

the statement, that there are advantages instead of disadvantages in the small school, where personal atatention is possible, provided the facilities are adequate. This is precisely the situation of the School of Medicine of the University of Kansas. Its growth and experience during ten years have shown that it can hold its own against any competition provided the state furnishes it a reasonable maintenance.

There are in the neighborhood of three thousand physicians in the State of Kansas, forming as important a profession as the state affords, a profession that is perhaps the oldest of all the learned professions in the world. That it should be represented in the highest educational institution of the state is just and inevitable. Its rights in this respect are just as great as the rights of the professions of law and engineering.

The board of regents of the University of Kansas, the board of administration and the officers of the University have for many years been giving the best consideration of which they are capable to educational questions connected with the University. Even when actuated, as the present Efficiency Commission is, by the highest motives, it would seem against public policy to enter upon sweeping and vital changes after a consideration, which compared with that which has been given by the officers and governing boards of the University, can be nominal only. To act hastily in such vital matters or to raise again a question so often formally decided introduces confusion and uncertainty and undermines confidence in the permanency and efficiency of all our education.

SUMMARY.

1. Work in medicine, one year of a three-year course, established in 1880, antedating work in pharmacy, education, university extension, the summer session, and coming only a few years after establishment of courses in law, engineering, fine arts and college of liberal arts.

2. School of Medicine, two years of a four-year course, organized 1898-9, S. W. Williston, Dean.

3. In 1905-6 the course was extended to four years, with Clarence E. McClung Acting Dean of Scientific Department, and George H. Hoxie Dean of the Clinical Department.

4. Clinical Department was established in accordance with an act of the legislature of 1905 at Rosedale, Kansas.

5. In 1905 Kansas City Medical College of Kansas City, Mo., founded in 1869; the Medico-Chirurgical College of Kansas City, Mo., founded in 1896; and the College of Physicians and Surgeons of Kansas City, Kansas, founded in 1893, merged in the School of Medicine of the University of Kansas, and their alumni were incorporated in the alumni of the University of Kansas on the understanding that the new school would be permanent.

6. In 1913 the Kansas Medical College and Medical Department of Washburn College were merged in the School of Medicine of the University of Kansas on the same understanding and promise.

7. The act of the legislature of 1905, Senate Bill No. 203, Chapter 396, of the Laws of Kansas of 1915, authorized the Board of Regents of the University of Kansas to accept certain lands for the purposes of a hospital and clinical school situated in Rosedale. One of these tracts of land of 7½ acres was a site for the school.

8. In addition to the 7½ acres were 101 lots in the City of Rosedale, several farms in Missouri and Kansas, and cash, the total value of all the gifts by Dr. Bell being about $90,000.00.

9. Since 1905 the following gifts to the clinical school and hospital have been made:

1. 1915, by Marshall A. Barber, lots in Rosedale, $5,000.00.

2. 1915, the Simeon B. Bell heirs, lots in Rosedale, $2,500.00.

3. 1915, Mrs. Stewart, piano for nurses' home, $200.00.

4. 1915, the John L. Porter Estate (estimated $30,000.00).

10. Since 1905 every University budget presented to the legislature has contained

an apportionment for the School of Medicine, which has been thoroughly discussed and authorized every two years since.

11. In 1911 it was made a separate section in the University Appropriation bill. The Ways and Means Committee of the House and a joint sub-committee of the Ways and Means Committees of the House and Senate passed on this question.

12. In 1913 the question of the School of Medicine was given the most searching consideration by joint Ways and Means committees. The same legislature fully investigated the affiliation of the State Board of Health and the School of Medicine and reported favorably upon the same, in accordance with resolution in Chapter 350, Laws of Kansas, 1913.

13. The approval of the legislature has been more than justified by the development of the school, which has been placed in Class A by the American Medical Association. Its entering class for the present year is 58, one of the largest in medical schools in the United States. In 1910-11 its enrollment was 99. In 1915-16, 136, including the school for nurses.

14. The School of Medicine now constitutes one of the most important professional schools in the University. It is of great importance that the state in its organized form have under its control joint agencies of the School of Medicine and the State Board of Health.

15. With few exceptions schools of medicine have four-year courses. Some universities, like Wisconsin and Missouri, give but two years. There are in nearly every case special reasons for this, it being recognized as a disadvantage.

16. There is no more reason for the State of Kansas to shift from its shoulders responsibility in regard to work in medicine than there is in regard to work in law, engineering, education, pharmacy, fine arts and the rest.

17. It is an injustice and social and economic mistake to force the youth of a state outside its boundaries for any considerable part of their education.

18. It is true that there are large and important schools of medicine in other parts of our country, but there are also great colleges of liberal arts, law, engineering and the rest. There is just as much reason for forcing out of the state the youth of Kansas for one kind of work as the other.

19. There is much truth in the statement that there are advantages in the small school, where personal attention is possible. This is the situation of the School of Medicine. It can hold its own against any competition if furnished reasonable maintenance.

20. There are about three thousand physicians in Kansas. The right of their profession to be represented in the educational system is as great as the right of any other profession.

21. It is against public policy to enter upon sweeping and vital changes after consideration, which compared with that given by officers and boards, can be nominal only. To act hastily in such matters introduces confusion and uncertainty and undermines confidence in the permanency and efficiency of all education.

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Uses and Abuses of Ileosigmoidostomy.

HUGH L. CHARLES, M.D., Atchison, Kan.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

Nothing will afford the surgeon any greater satisfaction than the results following ileosigmoidostomy, provided the operation will have really been indicated and properly performed. A patient whose symptoms demand this operation is usually in a deplorable condition. His color is bad, always being sallow when not cachectic; he is emaciated, very weak and exceedingly constipated; he eats but little and his food consists only of a few things which he has learned, by painful experimenting, disagree with him less seriously than do other things. Vomiting is a very usual symptom in these patients, with attacks often very close together and so severe that even fecal matter is brought up. Prostration is usually extreme. After one of these attacks subsides an interval may

follow during which no vomiting occurs for several months, after which, however, another so-called "stomach spell" comes on.

Nothing in a medical way seems to give these patients much relief, but most of them try every drug and every therapeutic fad or fancy within reach. It is, therefore, not surprising that these patients as a rule become very morose, nor is it any more surprising that the physician who has one of these patients haunt his office a great deal feels like leaving town whenever a visit from him is anticipated.

Much that is written against ileosigmoidostomy arises from the fact that the operation is too often looked on as only a passing fad and, for that reason, its merits are not properly investigated. Often, too, the operation has been performed on patients in whom it should not have been done. Like every other operation, it should be done only in properly selected cases.

Whenever ileosigmoidostomy is done either unnecessarily or improperly not only is the patient put to untold suffering, but the surgeon himself is bound to come to grief. Patients in whom this operation is indicated may be divided into two classes. In the first class belong all cases with chronic intestinal ptosis and stasis and cases in whom the lumen of the colon has been greatly lessened (but not by a growth) and in whom persistent and properly directed dietetic, hygienic, medicinal and surgical means for relief have failed.

The second class of patients on whom ileosigmoidostomy should be done is epileptics, provided the findings of Reed of Cincinnati, in regard to the etiology of epilepsy, is proven correct, as now seems highly probable.

As a rule, patients belonging to the first class of cases calling for the operation under consideration have been put through every therapeutic stunt from tonsillectomy to the removal of piles. The pain they suffer is usually described as a constant dragging feeling in the abdomen but with no sudden onsets. The age of these patients is likely to be somewhere from thirty-five to sixty years, although I now have under observation one of these cases only twenty-four years old.

A description of the technique of this operation will not here be attempted, as this can be found in any new surgical textbook or in Lane's monograph on "Intestinal Stasis." And the operation will be found to be sufficiently difficult to enlist the technical ability of the most skillful surgeon. While end-to-side anastomosis is usually the procedure of choice in this operation, just as good results often follow side-to-side anastomosis. In this operation it may or may not be deemed desirable to remove the colon in whole or in part. Indeed, this removal is seldom necessary in these cases; and when it is done, it is usually done at a subsequent operation. Some of the conditions which may demand removal of the colon are the following: When marked evidence of old appendicial trouble with extensive adhesions is present; when constant pain exists due to efforts of the caecum to empty itself of mucus; or when the patient is over forty-five years of age, as subsequent malignancy may properly be feared at this time of life.

In ileosigmoidostomy proper post-operative care is of paramount importance. During the first forty-hour period, the patient usually gets along reasonably comfortably, but the second forty-hour period is generally quite stormy. Symptoms of such gravity may occur that intestinal obstruction, or peritonitis will be suspected, but these symptoms gradually subside and the patient soon gets more comfortable. I usually allow a colon tube, put through the anastomosis at the time of operation, to remain four days. Some operators advise that it remain from seven to ten days, but the shorter period has, in my experience, been found quite sufficient.

Reed of Cincinnati reports wonderful success from short-circuiting the bowels in cases of epilepsy. He even removes the colon in most cases. I have had but one patient of this sort. The patient was a

married woman who had had three children; had been obstinately constipated for fifteen years; had dragging down pains and weighed only ninety-four pounds, although she was five feet and four inches in height; and had frequent attacks of epilepsy. Her bowel was short-circuited for another trouble about eighteen months ago and she has had no epileptic seizure since. The colon was not removed.

Ileosigmoidostomy is too formidable an operation to be undertaken except for the most adequate reasons and in long-standing obstinate cases; but whenever it is really indicated, the brilliancy of result following its proper performance is usually proportionate to the severity of the symptoms beforehand. To perform this operation for severe constipation alone, is, however, never justifiable until all bands and kinks have first been relieved and sufficient time has elapsed in order properly to test the results of these procedures.

Possibly I have been exceptionally fortunate in regard to post-operative disturbances in ileosigmoidostomy, but I have so far had no serious complaints in my patients of the excessive thirst which is said to follow this operation, nor have they had diarrhea. Indeed, these cases seem to recover much more promptly than is usual after severe abdominal operations.

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The Process of Diagnosis.

T. A. JONES, M.D., Liberal, Kansas.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

Statistics from authoritative sources indicate that regular medical men make a correct diagnosis in only about half the cases. This is a grievous reproach to us as a profession and has a very sweeping significance. The theory of our science makes no provision for treatment without diagnosis so half the cases under our care are handled contrary to the theory of our science and to say the least fail in effect.

It is true that there are cases in which the nature of things does not permit a positive diagnosis. These we all agree are rare. In the large majority of cases our science does afford facilities for making a positive diagnosis. The descriptions of the different diseases are in all the standard texts. The fault is in us. There must be something radically wrong with the way we go about making a diagnosis.

Cabot says we fail in diagnosis usually because we do not examine completely, occasionally because we do not think correctly. This is no doubt true for the conditions under which Cabot works. He can make a complete examination in every case and the thinking part is reduced to a minimum. In general practice we can make only partial examinations at the best and must compensate by more correct thinking.

In this connection allow me to direct your attention to the process by which we make a diagnosis. In beginning the study of medical science we learn that the human body is assailed by certain agents which bring about changes in its structure and vital processes. The changes produced by the same agent in different individuals form a characteristic group and this group we call a disease. Some of the changes are so deeply hidden in the vital parts of the body that we cannot observe them during life. Others we can discern with more or less readiness and these we call the signs of the disease. The patient is conscious of certain changes of sensation and these we may call the complaints of the disease. The signs of the disease and the complaints of the patient are often referred to as the symptoms. That is, the things which fall together with or accompany the disease. The symptoms of the disease are apt to have a characteristic rate and order in their onset and so we add to our study the history of the disease. The history, complaints and signs all taken together form the features of a picture which we endeavor to hold in our memory and recall to recognize the disease in individual cases. Our studies in college, in hospitals and in the actual practice of our profession are mainly concerned with acquiring a familiarity with these disease pictures. That is, we get

acquainted with the diseases and for want of a better term we will call this our disease acquaintance.

In practice when we come upon an ailing individual our first object is to classify the disease according to this previous acquaintance. This classification we call diagnosis. In making a diagnosis we must first investigate the case to bring out all of its features. This we call an examination of the case.

When we have obtained the features of the individual case they form a certain picture in the mind. This picture is apt to correspond to one of the general text book pictures we have learned and one only. In order to pick out the picture to which it corresponds we must compare it to each of the general text book pictures. In this way we eliminate from our consideration all but the right general picture. This part of the process we call the elimination.

The process of diagnosis then divides itself naturally into three elements. First the memory must be stored with the general pictures formed by the features of the different diseases. Second, one must find out the features of the individual case. Third, he must fit this individual picture to the proper general picture of the texts.

For purposes of discussion then I venture to designate the three elements of the process of diagnosis by the terms: Disease acquaintance, Examination and Elimination.

In the present stage of advancement of medicine diagnosis is not a perfect science. All diseases have not been described and all general pictures of diseases are not yet in the text books. So one may find an individual picture which has no general picture to match it. All features of the disease may not be expressed in the individual case. So one may find an individual picture which matches more than one general picture. In either case a diagnosis is impossible.

To illustrate what is meant by the three elements let us take from actual practice an example of failure in diagnosis from lack of proficiency in each. A man on a journey stopped at a strange house and began to roll on the floor and cry with pain in his hand. A physician came and found no local signs but administered morphine. Next day the pain continued and there was some swelling on the dorsal surface. This was lanced without improvement. A few days later the infection spread up the tendons of the wrist with an ultimate fatal result. This physician had never heard of a deep palmar abscess. The picture is striking and so unlike any other that he could not have failed in the elimination. He was not acquainted with the disease. He was deficient in the first element. Another physician sent thirty miles for a consultant to make a blood count. He knew that with the leucocyte count he could differentiate in the case between typhoid fever and appendicitis. He had the general pictures in his memory. He was a good thinker but he could not make a proper examination. He was deficient in the second element. Another physician watched a case of myxoedema develop for two years and when the right diagnosis was pointed out to him exclaimed "Why didn't I think of that!" He had the general picture of myxoedema in his memory. He could make all the examination necessary but he was not a good thinker. He had failed in the elimination. He was deficient in the third element.

If we are to divide this process into its elements it is proper to ask what use we can make of the division. It will enable us to direct our studies in diagnosis to the quarter in which they are needed most. If one has failed in diagnosis and finds that he is not familiar with the right disease when it is suggested to him, he lacks disease acquaintance. He should go to the books and clinics and get acquainted with more disease. If he has failed because he did not bring out all the symptoms, he is deficient in examination. He should cultivate a more accurate method of history taking and spend more time in the laboratory. If he has failed when he was ac-

quainted with the disease and had made sufficient examination, he is not a good thinker. He should study the theory of elimination.

Diagnosis by elimination is diagnosis by ruling out diseases. We must prove that it cannot be any other disease except one. Although in every elimination every disease in the text books must be ruled out, we do not stop to compare the individual picture with each of the general pictures singly. Our method is far more rapid than that. As the mind takes cognizance of the first feature of the individual picture it divides all diseases in the text books into two classes on this basis and the diseases which do not have this feature are ruled out. Immediately the mind grasps another feature of the individual picture and the remaining diseases are again divided and one part eliminated. In this way taking the features of the individual picture one by one and dividing the remaining diseases accordingly, they are split off till only a small group is left. These because of a closer resemblance to the individual case must be dealt with singly. They are as it were the candidates for diagnosis. Our next step is to eliminate these candidates. If in spite of our best efforts one candidate cannot be ruled out we are entitled to call it a diagnosis.

In the elimination two capital errors are to be avoided. First, one must not rule out any disease for insufficient reason. This is more liable to happen early in the process when diseases are handled in divisions. The right disease may be included in one of the divisions eliminated. This is indicated if one can eliminate all of his candidates. Then he must go back to the beginning and hunt for more candidates. The other more prevalent error is to begin by picking out a disease for diagnosis because it resembles the individual case. Having jumped at a conclusion and made his choice, his vanity becomes arrayed in its favor and the diagnostician is no longer an impartial observer. He finds symptoms to support his diagnosis. This method is not diagnosis by elimination. It might in contradistinction be called diagnosis by similarity, but it is not really diagnosis at all. Even in good hands it is little more than guessing. This is above all the method of the snapshot diagnostician. This man gambles for our admiration and sometimes wins it and sometimes makes fatal mistakes. If there is a genius in diagnosis he is at the other extreme. It is the slow man—the man who follows up the complete process of elimination in every case and who comes to no conclusion till the facts compel him.

The process of elimination is mathematics and gives definite and positive results. The conclusions of the diagnostician should have the "quality of necessity." He should know that he has made a diagnosis and know why he made it or he should know that he has not made a diagnosis and know what other data are necessary before he may.

If no other point is brought out in this discussion, I hope at least to emphasize the need for more thought in diagnosis. All honor to present day methods and instruments of precision. We must use them for all they are worth. But the science of medicine is more than mechanics and after all the greatest instrument of the diagnostician is logic.

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Endometritis.

R. C. HENDERSON. M.D., Erie, Kansas.

This subject is presented, not with the idea that I have anything new to offer along this line, but to remind you that in this condition we have a disease which by no means is rare or uncommon and from which more of our female patients are suffering than any other affection with which we have to deal.

No doubt some of you will deny this statement; but I believe, if you will take the time to inquire of every married woman who comes to you for this or some other trouble, you will find the subjective symptoms present and upon a physical examination, the objective symptoms of an endometritis in five out of every ten pa-

tients. I need not confine you to the married women alone, for you will find the same conditions existing in the unmarried in a far greater proportion than one would suspect; and not only in those who have "loved well but not wisely," but also in the most virtuous in your community.

DEFINITION.

An endometritis may be defined as an inflammation of the corporal mucosa; while an endocervicitis is that of the cervical mucisa. These conditions may exist alone, but I have found these cases so rare that I prefer to consider both as one disease and treat them accordingly. To emphasize the importance of this subject I will quote Ashton of Philadelphia. He says, "In the light of modern pathology, inflammation of the uterine mucosa becomes a subject of vital importance, as it is the starting point of nearly all inflammatory lesions of the pelvic organs." Inflammation of the endometrium may be divided into five varieties, viz.: congestive, constitutional, gonorrheal, septic, and senile.

ETIOLOGY.

The congestion is due, as the name implies, to congestion, and may be produced by any condition that interferes with the uterine or pelvic circulation, as uterine displacements, uterine or pelvic tumors, subinvolution, cervical lacerations, tubal disease, suppression of the menses from cold or cold douching, cervical stenosis, sexual excesses, eruptive fevers, and improper hygiene. The constitutional is the result of such constitutional diseases as tuberculosis, anemia, gout, rheumatism, syphilis, lithemia and chlorosis.

It is needless to mention the cause of the gonorrheal, while the septic is produced by infection after labor or abortion, careless intra-uterine treatment, use of the sound, dirty operations, and sloughing uterine tumors. The senile variety occurs after the menopause, and, usually, is the result of an old or new infection on the atrophying mucosa.

PATHOLOGY.

The congestive and constitutional present two varieties—glandular, in which the utricular glands are hypertrophied, and interstitial, in which there is an increased amount of connective tissue between the follicles. Both of these varieties may exist in the same uterus. Occasionally, polypoid overgrowths develop on the mucosa, and in some instances the endometrium is thrown off in shreds at each menstrual period. The name of "exfoliative endometritis" is given to this condition. In the gonorrheal and septic forms the endometrium presents almost the same pathological changes that are shown in inflamed mucosa, elsewhere; while in the senile, the endometrium and its glandular elements become atrophied and are, more or less, replaced by connective tissue.

SYMPTOMS.

The congestive and the constitutional develop slowly, and usually the first and one of the chief symptoms complained of is leucorrhea. The discharge is generally thin, but may be mucopurulent or even purulent, and is sometimes mixed with blood. It is usually without odor and non-irritating, unless the patient be uncleanly in her habits, when it becomes very offensive. The quantity varies with the severity of the case, and is usually more profuse two or three days before and after menstruation. Unless there is a considerable hypertrophy of the mucosa, no menstrual disturbances occur; but if there is an overgrowth, menorrhagia and metrorrhagia are the prominent symptoms of the congestive variety; and in the interstitial form of the congestive, painful menstruation is not an uncommon occurrence. When the mucosa is atrophied the flow is lessened and more or less watery in character and is accompanied by an intermittent pain which begins several hours before the flow. In the constitutional variety the only menstrual symptom present is a dysmenorrhea, if the cause be gout or rheumatism. In both of these varieties, the congestion and constitutional, we may have local or reflex pains, as occipital or vertical headache, pains in the lumbo-sacral, inguinal or hypogastric regions,

and a burning sensation immediately behind the symphysis pubis. This later symptom I have noticed quite frequently. It is almost needless to mention the two prominent symptoms and results or an endometritis-sterility and abortion. Yet we are constantly besieged by a class of patients whose married life has been fruitless, inquiring into the cause of their barrenness, or if they do conceive, why they are unable to carry to full term. Generally, they are told that the fault is with the husbands, or that some congenital defect exists, or given some other seemingly intelligent reply, rather than make an examination and determine whether the mucosa furnishes a suitable attachment for the ovum, or the formation of the decidua, or whether the uterine secretions are destructive to the life of the spermatozoa. Such general symptoms as neurasthenia, general debility, anemia, and gastro-intestinal disturbances are often present. There is also a very marked tendency to constipation. It is needless to consider the symptomatology of the chronic types of the gonorrheal and the septic varieties, as these, after assuming a chronicity, present almost the same symptoms as do the congestive and constitutional; excepting that in the gonorrheal the infection eventually extends to the tubes, and occasionally so in the septic. The acute type of the gonorrheal is ushered in by a chill, followed by a high temperature and rapid pulse. Pelvic pains are common, as is also nausea, vomiting, diarrhea, rectal and vesical tenesmus, and shortly a mucous discharge appears which rapidly becomes purulent and may be mixed with blood. If the disease extends to the tubes, symptoms of an acute salpingitis or peritonitis develop; but if not, in the course of a few days the acute symptoms pass away and the disease becomes chronic. The acute type of the septic may take one of the two forms—septic intoxication or sapremia, and septic infection or septicemia, depending upon the amount of poison absorbed. In septic intoxication, the symptoms manifest themselves in from twenty-four to forty-eight hours after labor or an intrauterine operation. They begin with a severe chill, followed by high temperature and a rapid pulse. The discharge lessens in quantity or is entirely suppressed in a few hours, but shortly returns, dark, purulent and having a very offensive odor. All the symptoms become exaggerated. Irregular chills, high temperature, weak and rapid pulse, urine diminished or suppressed, and diarrhea; when the typhoid state develops and death ensues. In septic infection, the symptoms do not come on for from four days to one week, and are practically the same as those of septic intoxication, but lack in the point of severity; for the source of infection may be destroyed and the poison eliminated, and thus the disease pass into the chronic state.

The senile, or post-climacteric, variety develops after the menapause, with a profuse, offensive and purulent leucorrhea which is quite irritating and frequently causes a pruritis vulva. The patient is usually poorly nourished, and there is a loss of appetite and strength, with more or less mental depression, aggravated by dull pains in the lower abdomen and lumbo-sacral region.

DIAGNOSIS.

The diagnosis of these cases is not difficult, and may be made from the history, symptoms, physical signs, and microscopical examination. If the onset is insidious, we know it is non-specific, while a history of some constitutional trouble makes us think of a constitutional endometritis. With a history of a suspicious intercourse followed by a muco-purulent discharge and an acute urethritis or vulvitis, we have in mind a gonorrheal infection; while an infection following labor, an abortion, or an intrauterine operation can be nothing but the septic form. Again, an elderly woman with a history that the discharge came on after the climacteric, we know has a senile endometritis.

Since a leucorrhea is the only constant symptom, and a very large proportion of cases of leucorrhea are uterine in origin,

it is fair to suppose that it is from the endometrium. If the local and general symptoms are sudden and well marked, and no history of septic infection, we are safe in saying it is gonorrheal.

If the symptoms are severe, well marked, and indicate a more or less profound general infection, they point to one of the acute septic forms. By recto-abdominal and vagino-abdominal palpation, we may recognize nearly all of the causes of the congestive.

In the congestive, constitutional, chronic gonorrheal, and chronic septic forms, the uterus is rounder, cervix patulous, parenchyma softened, and the fundus tender. In the acute septic variety following labor, the uterus and cervix are relaxed, soft, and flabby, and involution is retarded or checked. In the senile, we find the fundus, body, and cervix atrophied.

Around the os, on the outer surface of the vaginal portion, is found a red, velvety area, which has a distinct stamped-out appearance, and similar red spots may be found farther out on the vaginal portion. They are often called erosions and form what is known as a granular os. This condition is characteristic of all the chronic forms. Usually in the gonorrheal there are signs of inflammation in the urethra, Skene's glands, or the vulvo-vaginal glands. The discharge is usually profuse and purulent and there are areas of inflammation along the vaginal wall. In the puerperal cases there is the lochia and a purulent secretion, the os is patulous, and there are evidences of recent traumatism. By the aid of the microscope a positive diagnosis may be made in nearly every gonorrheal and septic case.

DIFFERENTIAL DIAGNOSIS.

In making a diagnosis, the congestive, constitutional, chronic gonorrheal, and chronic septic must be differentiated from malignancy, incomplete abortion, discharges from the tubes or vagina, or a ruptured pelvic abscess. The acute gonorrheal and the acute septic may be difficult to differentiate, while the senile variety is quite often mistaken for cancer. In all of these conditions the history, symptoms, physical signs and microscope must be relied upon.

PROGNOSIS.

In stating our prognosis, the cause must be given the greatest consideration. The congestive and constitutional varieties do not produce grave pelvic lesions, while the gonorrheal and septic may end in death in a short time or produce chronic tubal disease and necessitate the removal of the appendages to restore health.

A very favorable prognosis may be given in the uncomplicated cases in the old women.

TREATMENT.

The treatment requires the removal of the cause, then the cure of the disease. It is needless to repeat the etiological factors of the different varieties, and go into the treatment of their various causes, but only necessary to say that the cause must be ascertained and removed as far as possible before we can expect or promise our patient a cure. The cure of the disease in all its forms is accomplished by dilatation and currettage, the technic of which we have not the time here to consider.

However, it is the opinion of some that in the acute septic variety we should use intrauterine irrigations for several days and probably thus avoid an operation. To this I can say that in my own experience I have had always, sooner or later, to resort to the curette, and in several instances have regretted that I did not do so in the beginning. After the cause has been removed and dilatation and currettage accomplished, the patient should be kept in bed for from one to two weeks. Then she should have plenty of rest with moderate exercise in the open air. Gymnastics, dancing, bicycling, machine sewing, and such fatigueing movements should be prohibited.

The food should be nourishing and easily digested. The bowels should be kept open, preferably with mineral oil or salines, and sexual intercourse prohibited for at least two months.

Vaginal douches of hot normal salt solu-

tion should be used daily for two or three months. The clothing should be supported from the shoulders and not from the waist, as any constriction around the abdomen may prove injurious. In very stout women, a well fitting elastic abdominal supporter acts as a support to the pelvic and abdominal organs. Warm baths or warm sitz baths two or three times a week draw the blood from the uterus to the capillaries of the skin. Whatever minor conditions exist should be attended to as they arise. But all of our patients are not going to submit to this line of treatment; in fact a large proportion of the afflicted will not. Their condition demands relief, they insist upon having it, they are entitled to it, and if we make no effort to help them they will pass on to another physician or go the Pinkham, Pierce, Viavi or Cardui route. We must treat them, even though some condemn intrauterine office treatment. With the same attention paid to asepsis as there is in a surgical procedure, there can be no danger, and we can cure many of these chronic sufferers and give relief to a great many more. It is almost needless to repeat that the cause should be removed as far as possible; either before the local treatment is begun, or after it is instituted.

The routine of the local treatment should be as follows, with slight variations to suit the case: A vaginal douche, 1 to 4,000 bichloride, followed by one of normal salt, and then by drying the vagina with pledgets of sterile cotton. The os is usually patulous and requires no dilatation for the entrance of an applicator wound with cotton, with which is applied to the endometrium either tincture of iodine, Monsel's solution, or phenolated camphor. In the majority of cases the latter gives excellent results. If there is much congestion, multiple punctures with a bistoury should be made in the cervix to assist in depletion. When there are erosions around the os or on the vaginal walls, apply tincture of iodine or Monsel's solution, unless the case be gonorrheal, when phenol or 10 per cent silver nitrate should be used. A large cotton tampon saturated with glycerine or ichthyol and glycerine is then introduced into the vagina and allowed to remain for forty-eight hours, the patient being instructed to remove it at the end of that time, take a douche of normal salt solution and report to the physician. If the case is a very mild one, she reports but once a week, using the douches once or twice a day after she removes the tampon. In those cases in which there is an anti-flexion, gradual dilatation at each treatment will assist in replacing the uterus in a normal position, overcome the dysmenorrhea, and hasten the depletion. When there is a retrodisplacement, the uterus should be raised to a normal position at each treatment, if possible, and the tampon packed tightly, posteriorly, to retain it. During the menstrual period and when no tampon is used, the patient should wear a well-fitting Smith-Hodge pessary. Look after the patient's general health, diet, excretions, secretions, clothing, exercise, rest, etc., and we will cure many and greatly benefit the remainder of those who will not consent to our first choice of treatment.

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A Discussion of Some Unavoidable, or at Least Excusable Errors of Diagnosis, and Plea for Earlier and More Frequent Exploratory Operations in Abdominal Lesions.

R. C. DUGAN, M.D., Ottawa, Kansas.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

It perhaps seems strange that with the present status of surgery a plea for exploratory operations should be necessary, but the flourishing conditions of the osteopaths, chiropractors, and other fake cults, is a standing reproach to our profession, for I think it is safe to say that very few patients go to these fakers until they have first tried the regular profession and failed of relief from their suffering.

If we were doing our *whole* duty to the public, these so-called schools of medicine

would disappear as the snow in the noontide sun.

Can you blame a layman with gall bladder trouble, ulcer of stomach, or duodenum, chronic appendicitis, or other ailments, for seeking relief at the hands of these cults when they have been treated for months or years with pepsin, nux vomica or Stuart's Dyspepsia Tablets *ad nausea*, without relief or the suggestion that it was within the power of the regular medical profession to give them relief?

It has seemed to me that one mistake of many conscientious practitioners is that they feel the incumbency of making a positive diagnosis especially in many abdominal conditions in which, even with all our modern laboratory and other methods, it is impossible to be sure of more than that a surgical condition exists which only an exploratory can clear up, and if they would advise their patients accordingly it might save them (the patients) much suffering and themselves the humiliation of seeing them go to a quack.

The fact that the gall bladder, pyloric end of stomach and first portion of the duodeum, a fruitful field of both acute and chronic digestive troubles, can be covered by the palm of a very small hand, should, it seems to me, warn us against being too positive as to the exact lesion, but at the same time remind us of the chance of its being something more serious than chronic functional dyspepsia or indigestion amenable to some one's particular brand of pepsin.

If there is persistent temperature, with muscular rigidity and pain, more marked in the right lower quadrant, we, of course, suspect appendicitis, but we should not forget that gall bladder infection is capable of causing the same group of symptoms, especially if the liver lies low in the abdomen. If we have pain definitely following the injestion of food, or pain late, which the taking of food seems to relieve, and no temperature, we suspect either gastric or duodenal ulcer, but we have all seen these symptoms in connection with gall bladder disease and with chronic appendicitis. And, if you will excuse a digression at this point, allow me to call attention to the fact that Rosenow has shown that nearly all ulcers of stomach and duodenum are due to streptococcus infection from the blood side and that many of them have a pre-ulcer stage, exactly as Rodman has shown a pre-cancer stage before malignancy definitely develops, and as all these cases are anemic, they should, in my opinion, if seen early, be returned to the internist for a course of chalybeate and arsenic to improve the condition of the blood. The starvation treatment, in spite of the spectacular recoveries reported by Sippy, is very risky for, if they are not cured of the ulcer, they are certainly greatly reduced and become much more unfavorable surgical risks.

If we have a history of acute attacks of pain, with vomiting and great prostration unconnected with the taking of food, we suspect gall stones, but should not forget that right kidney or high ureteral stone may produce exactly the same syndrome.

I will not weary you with extended case reports, but can not resist the temptation to speak of three or four typical cases that have come under my observation. Case I: Boy, eleven years of age, entered the Eyota Hospital with a diagnosis of some mythical form of dyspepsia. He was a typical little wizened old man with retracted abdomen and marks of general starvation (was unable to take any but the lightest of liquid nourishment). On opening abdomen there was found evidence of old appendicitis, probably in infancy, with a short undescended colon, that brought the pyloric and appendiceal regions in close contact—the adhesions incident to the appendicitis had partially closed the pylorus. This boy gained on an average of two pounds a day for some time after leaving hospital and in a year was fully restored to health.

Case II: Miss S. called at our office repeatedly with complaint of pain and tenderness at McBurney's point, but as I

could never catch her with any temperature and as she was, to my knowledge, of a hysterical temperament, I advised a "watchful waiting policy." After some four or five visits her father, a very intelligent German farmer, said to me, "Doctor, if you suspect any trouble with her appendix, I wish you would operate, as we do not want to take any chances." She was sent to the Eyota Hospital and on the following morning a right rectus incision revealed an appendix with absolutely no protective adhesions, but with a fecal stone that had ulcerated through the mucous and muscular coats and could be plainly seen through the peritoneum—I leave it to your imagination what would have happened had we waited a few days longer.

Case III: Mr. S., aged 86 years, with a gall bladder history, but also a cachexia that suggested malignancy, and he had been advised on account of his age and general condition not to be operated, but decided to take the chance. A large number of gall stones were evacuated and gall bladder drained—he is alive, active and enjoying the best of health today at the age of 92 years.

Case IV: To this case I wish to call especial attention, as it illustrates some important things in diagnosis; first, the extreme difficulty that frequently occurs in getting a clear and intelligent history (it has been a standing joke between my assistant and myself that our post-operative histories are so much more illuminating than our ante-operative histories, in spite of the fact that we have tried to elaborate a system of questions that if possible, would bring out a full history). This man, 45 years of age, gave a very vague history of chronic intestinal obstruction with occasional acute exacerbations. He was first seen in one of these acute exacerbations and notwithstanding the closest questioning we could devise, was unable to give us any idea of the original cause. He was, nevertheless, advised to have an exploratory, but refused because we could not tell him positively the cause of the obstruction. He partially recovered from the attack and went on for a few days, when he returned with complete obstruction and fecal vomiting. We then operated under protest and found that nearly the whole ilium was semi-gangrenous on account of an adhesive band that was evidently due to an old appendicitis—a clear history of which was later obtained from his sister. It had occurred in early childhood and had either been forgotten or overlooked by him in the face of the above described strenuous questions.

We have long recognized the danger of procrastination in cases of chronic hemorrhage, as in fibroid, realizing that the blood-making organs could be exhausted by constant and prolonged demand on them, but it remained for Crile with his "kinetic drive" to enforce upon us the fact that the cells of the central nervous system can be exhausted by chronic suffering in much the same manner and that an operation on an individual who has been a constant sufferer for a long period of time would produce more shock than an operation of many times that severity on a normal individual.

In conclusion we have also long recognized the fact that we could not live a day even under ordinary conditions if it were not for a great reserve force in all our organs very aptly described by Crile as the kinetic drive and that that force is capable of being exhausted suddenly by loss of large quantities of blood or by gross injuries to the nervous system. And we should, in view of Dr. Crile's work and our every day experience, also recognize the fact that the same conditions can be just as surely produced by slow and continued hemorrhage or nerve exhaustion and that the point of failing resistance is much harder to discover in the chronic than in the acute cases. And we should be careful not to stretch the endurance of Mother Nature too far. It would be interesting to discuss, as Dr. Chas. Mayo has done, the great loss in earning capacity to themselves, and the commonwealth, of these individuals; but as that is a ques-

tion perhaps more related to political economy than medicine, I will leave it to you as a suggestion for future thought.

A Communication.

J. E. MINNEY, M.D., Los Angeles, Calif.

Journal of the Kansas Medical Society.

Dear Doctor and Brethren: The prodigal wants to return to you in spirit and greet you, since he cannot do so in person. It is not because the husks here do not make fairly good tamales (not so good, however, as the corn shucks in Kansas), but the prodigal was awakened to an active desire to greet you once again by getting a copy of your Society Journal. The Journal has a pleasant face, a nice dress and is a good looker. The menu is palatable and assimilable. The subject matter is noticed outside of state lines, as evidenced by the Journal of the American Medical Association giving your Journal four credits of papers in one of its issues. It is also pleasant to read the papers in your Journal by some of the old standpatters who have weathered the blizzards of the middle west, and to notice the handwriting on the wall is that of the editor of the late Kansas Medical Journal.

Seven years ago the prodigal was compelled to sever the ties that had bound him to Kansas for forty years, owing to ill health. Seven years is a short period of time in the age of the world. But not so in medicine and surgery. Medical practice has reversed itself or changed its method every seven years, almost, for the past forty years. This is proof of progress. And medicine is surely, if slowly, sticking a peg here and there in the framework of science and hanging some facts on them—something for future generations to tie to. In medicine mono-therapy has come to stay. Preventive medicine is a scientific fact. These two practices have been the shibboleth of the prodigal for twenty-five years.

Sero-therapy and vaccination have a substantial footing. Aerotherapy and thermal therapeutics have made a place for themselves. Diagnosis of the insane by their breath and of various diseases is in the making, as well as the detection of criminals by the heart beat.

There is no dearth of material for use, or of agents to apply or administer to the diseased. The gist of the practice of medicine is to know what causes the disease and to know what will antidote it. These questions have troubled man ever since he became a vertical animal—and will be leading questions for some years (?) probably. At the present date, 1916, it takes too many doctors to find out what ails the patient. If it is a case of walking sickness the patient is exhausted before he can make the rounds of the vicious circle, and falls by the wayside. If the patient is fortunate enough to live out of a city and not physically or financially able to travel or get to the city, his chance for the continuance of life appears to be more favorable.

This brew of the prodigal comes from reading Dr. Mosher's paper in the October number of your Journal, in which the following sentences occur: "There has been from the very start a conspiracy of silence among some of the nitrous oxide-oxygen anesthetists (specialists) to cover up their deaths." Again, "with the utmost difficulty I got track of twelve deaths from the combination which I reported at the meeting of the Tenth District Medical Society in Chillicothe, Ohio, a few weeks ago."

"The nitrous oxide anesthetists were there from Columbus, Cleveland, and Cincinnati, but they cut a very sorry figure, as I had all the facts." Again, "This means that in Columbus alone we have a death rate of about one per cent from nitrous oxygen, in major surgery." Such specialists remind one of Bill Nye's biography of Sparticus in which Nye says, "Probably no man not actually engaged in the practice of medicine ever killed so many people as Sparticus."

The present is a day of fads, fashions, specialties and intenseness. The specialist is essential to progress in medicine as

well as in the arts and sciences, and all vocations and avocations in life. But specialism alone is liable to lead to narrowness of thinking and to make one lopsided mentally, unless accompanied with more than an average amount of gray matter and his cerebral apparatus is rich in convolutions.

The prodigal believes the best solution of the danger which threatens medicine at present lies in the general practitioner of medicine. With the ample facilities furnished the medical student of today, he having had a practical literary training, there is no reason why he should not be the best prepared, broadest minded, safest counselor in the field of medicine, and the specialist should be the adjunct.

If the prodigal is not transgressing the bounds of present day medical journalism, he will be pleased to have short talks with you in your Journal on a few essentials in a medical education and the practice of medicine which do not stand out as clearly as they should.

MISCELLANEOUS.

Germicides.

R. A. Lambert, New York (Journal A. M. A., Oct. 28, 1916), has used the method of Harrison, Burrows and Carrel of cultivating living tissues in vitro and testing their resistance to the commoner germicides, as compared with that of the various pathogenic organisms. A more detailed report of this work will be published elsewhere, but he gives a tabulated statement of his results. It will be seen that cells are more easily destroyed than bacteria by all but one of the germicides, namely, iodin. Since the ultimate aim of his work was to find an ideal tissue disinfectant, it should be mentioned that iodin as well as the sodium hypoclorite solution used possesses the power of rapidly dissolving fibrin, a property which may militate against the use of each of the germicides in healing wounds, for it is recognized that fibrin serves a useful purpose in plastering together wound surfaces and thus facilitating organization. He has concluded from these experiments that this method of tissue cultures affords a simple and easily controlled method of determining under conditions analogous to those in the body the relative resistance of tissues and bacteria to various chemical agents, including the common germicides. Of the germicides tested, iodin is the only one which will kill staphylococci in strengths that do not seriously injure tissue cells. In view of its possibility of dissolving fibrin some other substance may be sought.

———R———

Acquired Intolerance for Mercury.

M. Zigler reports (N. Y. Med. Rec.) a case of acquired intolerance for mercury. The patient was first treated for about four months with intramuscular injections of the salicylate of mercury in doses of from four-fifths to one and three-fourths grains about once each week. During this time he had no reactions, except once after an injection of one and three-fourths grains. Following this course of treatment there was a period of eight months during which no treatment was given. The symptoms having reappeared the injections were renewed and on the first injection of three-fifths grain a marked reaction occurred and on subsequent injections when the dose was more than one-half grain these reactions were repeated with more or less severity. The severe reactions were manifested by cold sweats, vomiting, diarrhoea, terrific headache, marked prostration and weakness. Zigler describes this reaction ac an anaphylaxis to mercury.

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The following formula has been given by one of our exchanges for the cure of warts:

℞ Sulphur sub. .....3v.
Concentrated acetic acid..3iiss.
Glycerin. .....ʒij.

M. Sig.—Apply the paste to the warts on small pieces of linen or spread with a brush at night. Wash off the next morning. Repeat till the warts drop. This works every time.

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

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Is the Medical School a Burden to the State?

The Efficiency and Economy Committee, appointed by the last legislature, has made a partial report in which certain recommendations are made concerning the discontinuance of the medical school at Rosedale, that require some consideration on the part of the medical profession of the state. The text of this particular section of the report is as follows:

We recommend the discontinuance of the last two years of medicine. We would continue giving the first year and a half at the University as it is given now, and we would recommend that the last half of the second year be continued at Rosedale, and instead of the last two years of medicine that the Rosedale institution emphasize orthopedic work.

The superior effort which is necessary to make this school a success is not worth while. We are in favor of the University giving the first two years in a thoroughly efficient manner, and to quit at that. The site of Rosedale is against us. Separation from the University, history has shown in other places to have been an impediment, and the keen high standard of excellence which we must meet in the great endowed institutions of St. Louis, Chicago and Cincinnati makes the proposition discouraging, besides the enormous expense of the upper years of a medical school. The University of Missouri gives only two years, and the large University of Wisconsin gives only two years and has no intention of giving any more for the present. If it is unwise for Wisconsin it should be unwise for Kansas to continue in this line. We do not believe that any Legislature will ever appropriate sufficient money to overcome this school's natural disadvantages and give it a hopeful outlook. No lagging school should be maintained. The argument that we need to produce finished doctors for the advancement of our health and hygiene in this state we meet by asking where do we get our dentists and other professional individuals whom we do not train, of whom there is little scarcity? Would it not be more to the University's glory and the good of the state to encourage these men and women to take their last year's instruction in the big endowed institutions? The care of our poor crippled children should appeal to our soundest judgment and our most humanitarian feelings. We know of nothing in which Kansas is more behind her sister states than in caring for the crippled children from poor homes. After visiting the orthopedic hospitals of four states we are chagrined at our neglect. To encourage a few medical students to seek higher instruction for their last two years, and to care for a few hundred crippled children at Rosedale for surgical work every year, should appeal to the people of our state."

One is likely to be strongly impressed with the fact that the authors of this recommendation are quite unacquainted with the nature or extent of the work being carried on at Rosedale. One is at a loss to understand why this committee, without sufficient acquaintance with the work being accomplished at Rosedale to make judicious suggestions as to its management, should so emphatically recommend its discontinuance.

Chancellor Strong, in an interview under date of December 29 and published in the Capital December 30, has very concisely stated the position which the state should take in the matter of medical education. He is quoted as saying:

"There is no more reason for the State of Kansas to shift from its shoulders responsibility in regard to work in medicine than there is in regard to work in law, engineering, education, fine arts and the rest

"It is an injustice and social and economic mistake to force the youth of a state outside its boundaries for any considerable part of their education. It is true that there are large and important schools of medicine in other parts of our country, but there are also great colleges of liberal arts, law, engineering and the rest. There is just as much reason for forcing out of the state the youth of Kansas for one kind of work as another.

"There is much truth in the statement that there are advantages in the small school, where personal attention is possible. This is the situation of the school of medicine. It can hold its own against any competition if furnished reasonable maintenance. There are about 3,000 psysicians in Kansas. The right of their profession to be represented in the educational system is as great as the right of any other profession."

The State accepted its obligation to furnish a medical education to such of its citizens as might desire it when it established a medical school in 1898. It accepted an increased obligation in this direction when it established the clinical school at Rosedale in 1905. Shall the State repudiate an obligation once assumed, in the interests of economy alone?

What statesman, what exponent of state economy would have the temerity to suggest the abolishment of one of our greater educational institutions? Yet it may be easily shown that students in all departments may be educated in other institutions and at a much less cost to Kansas than under the present system. It would be cheaper to pay the tuition of every student in the university at some other school than to educate them here.

All of our institutions, educational and eleemosynary, had a beginning, in a comparatively small way, and at a time when the poverty and destitution of Kansas received more public notice than do its wealth and prosperity now. Perhaps some solon in those days was willing to declare that Kansas would never be in a position to spend millions instead of thousands for the education of its children or the care of its afflicted. We wonder if it was not as difficult in those days for the friends of these institutions to secure adequate appropriations for maintenance and improvement as it is now for the friends of the medical school to secure the pittance which its maintenance requires.

The medical school is intimately associated with another of the state's institutions—another of its obligations to the people—the Bell Memorial Hospital. These institutions are so interdependent that neither of them could be discontinued without lessening the efficiency and increasing the cost of maintaining the other.

No group of surgeons could be employed to do the variety and character of work being done at the hospital for the sum now expended for the instruction of the medical students at Rosedale. No surgical staff, competent to do the work required in a hospital for deformed and crippled children, could be employed for such an amount. Many of the members of the faculty are paid nothing for their services, all of them are inadequately paid, but they are giving to the State and its dependents services which have a real value of many times the total of their salaries.

The official representatives of the people have become so accustomed to the gratuitous services of the medical profession in any enterprise which has for its object the betterment of public health that they fail to recognize the fact that such services do have a monetary value—just as do the services of other citizens when rendered to the State. There are but three groups of people whose services are secured by the State at less than their actual value. These are, its soldiers during time of actual service, the prisoners in the state penitentiary, and the members of the medical profession.

No calculations based upon less than the average fees received for similar services in the ordinary routine of their professional life would fairly determine the value of the work done by medical men in any of the State's departments where they are employed.

For the purposes of this argument we will eliminate the services of the faculty of the medical school as teachers and consider only the value of the professional work they have done for the State and its dependents. And we will base our estimate of these services upon the minimum fees charged for similar services in the regular course of business.

During the year for which the report of the hospital has just been made there were admitted to the hospital 1,109 cases. The great majority of these were surgical cases and were operated upon by various members of the faculty. In estimating the services thus rendered we have counted three ectopic pregnancies at one hundred dollars each; eighty-eight accouchments at ten dollars each; sixty-eight abdominal operations at one hundred dollars each; two hundred and two operations on the nose and throat at twenty-five dollars each; twenty cataract operations at fifty dollars each; twenty other operations on the eye at ten dollars each; forty-nine appendix operations at fifty dollars each; seven operations for gall stones at one hundred dollars each; thirty-one hernia operations at fifty dollars each; six cleft palate operations at fifty dollars each; twenty-seven

fractures at twenty-five dollars each; and two hundred other operations at an average of ten dollars each—making a total of $22,405. Then there should be added the administration of the Pasteur treatment to thirty-five patients at the minimum price of one hundred dollars each, or $3,500. There were also one hundred and ninety-five medical cases for which we have calculated the very low average fee of ten dollars, amounting to $1,950. This makes a total of $27,855, which is a very low estimate of the cash value of the services of the members of the faculty in the hospital. We are not including in these calculations the services rendered by the faculty to the 2,536 patients treated at the dispensary, totalling 11,227 visits, and for which a fee of one dollar per visit might reasonably be allowed.

The cost for salaries and teaching expenses of the clinical school for the year was $20,068. The State received in services rendered by the faculty at the hospital alone $27,855, or $7,787 more than the cost of instructing the medical students. But these students also contributed something toward the expense of their training. There were thirty-five students who paid in fees $105 each, or $3,675. Then there was an item of $3,431.50 in cash fees for operations by members of the faculty. The cost of the clinical school to the State may be set out as follows:

To salaries and teaching expenses		$ 20,068.00
By professional services of faculty	$27,855.00	
By cash fees for operations	3,431.50	
By tuition and fees from students	3,675.00	34,961.50
Net profit to the State		$14,893.50

Two years ago, in the arguments against an increased appropriation, the value of the medical school to the State was estimated in terms of graduated doctors and a price per head was determined by dividing the total cost of the medical school by the number of graduates. If we follow the same method of calculation and divide the net profit on the medical school by nineteen, the number of students in the graduating class, we find that each of these students will have netted a profit to the State of $784. What other department of the State's educational institutions can make such a showing as this?

This committee has also recommended, we presume also in the interest of economy, that the hospital at Rosedale should be devoted to the care of crippled children. That this would be a very expensive proposition without the assistance of the faculty of the medical school has already been stated. What is the great need for such a hospital? Of the 1,109 cases admitted to the hospital during the year covered by the last report, just seventy-six —including twenty-eight fractures and thirty-one hernias—could be classed under the head of orthopedic cases. A few cases were turned away for lack of room. Cases of other kinds were also turned away for the same reason. So that we may fairly estimate the demand for an orthopedic hospital as against the demand for a general hospital as 1 to 100. There is evidently a tendency toward sentimental extravagance in this committee on economy and efficiency.

Whether a part of the second year shall be taught at Rosedale or not is a matter of small moment, but the recommendation of this committee that a part of the second year should be taught at Rosedale after the clinical school has been discontinued is an absurdity which still further proclaims a remarkable unacquaintance with the conditions it is so ready to disturb.

———B———

How Others See Us.

One is most likely to form his opinion of society in general upon the character of those of its elements with whom he is most familiar. He who sees only hypocrisy and debauchery in the clergy has most surely limited his association with this class of society to its derelicts and outcasts. He who can find only crooks and

liars in the legal profession has been very unfortunate in his choice of counsellors or his legal business has been such as to require deceit and trickery in its management. He who has found only dishonesty and graft in the medical profession has found only what he sought. The purpose of his seeking was no doubt quite in character with himself and the men he found.

We quote the following from the Weekly Report of the Board of Health of Cincinnati, December 16:

"An ex-judge is quoted as testifying in answer to a question concerning certain testimony before the court: 'I knew there was nothing in court so absurd but you could get the best doctors to testify it was all right, provided they got enough money for it.' . . . 'That is my experience after thirty-three years of practice. The doctors are the worst to testify. All they want is the money. It is a question of who gets to the doctor first. They would prove anything on either side of the case —that has been my experience with them.' . . . 'It is the only question in a community, who gets there first with the money, provided you have the most. If you get there with $10 he probably won't come, but if the other side gets there with $50 he will go to work and prove anything.'

"Judge ——— has very probably been misquoted or qualifying statements have been eliminated from his testimony as it appears in the press."

We are quite willing to believe that the Judge was misquoted, for a lawyer who has practiced his profession for thirty years and during that time has not found an honest member of the medical profession must have had a class of business in which truth and veracity played a minor part. A dishonest lawyer can usually find a dishonest doctor to do his bidding, and such a lawyer usually seeks that kind of a doctor. Thirty years of such associations would, no doubt, lead him to believe that the whole profession was of the same type. Should he inadvertantly come upon a doctor who preferred to tell the truth upon the witness stand he would not credit him with being honest, but would naturally assume that he had been bought by the other side. We are not willing to believe that a learned judge would intentionally make such a statement as that. No lawyer of high social and professional standing, whose associates are men of equal standing in other professions, would make such a sweeping charge as that attributed to this ex-judge. No mediocre in the legal profession, except in the bitterness of defeat, would so denounce a respected and honored profession. Only one of inferior rank, whose associates and acquaintances were of his own social and professional class, could so misjudge the character of so large a body of honorable men.

The system by which expert medical evidence is secured and used is responsible for many of the indignities put upon respectable members of the medical profession, and aspersions cast by defeated lawyers and their clients. Expert medical witnesses are usually given, for their preparation, the facts that favor one side only, and when in court may be humiliated on finding that they have had only a very incomplete and incorrect statement of the case. The court may demand definite opinions or positive statements when the case is so incompletely presented or the question so inexplicitly stated that the honesty or the intelligence of the witness may be put in doubt if he attempts an opinion or an answer.

It would be a wise policy on the part of medical men to refuse expert testimony except when such testimony could be based upon a full and complete investigation of all facts and circumstances bearing upon the case, and then given without bias or prejudice.

———R———

Chemotherapy of Tuberculosis.

In a lecture delivered before the Harvey Society at the Academy of Medicine in New York, November 25, Paul A. Lewis presented the results of some investigations recently conducted in the line of

chemotherapy in tuberculosis. The idea was expressed by Kock and von Behring and Erlich years ago, but their efforts to disinfect a body invaded by tubercle bacilli with chemical agents were unsuccessful. Substances were found which had a greater affinity for tubercle bacilli than for other organisms, but did not prove destructive to the organism in experimentally infected animals. More recent studies have shown that some substances which were not destructive to the bacilli in vitro proved to be inhibitory when administered to infected animals. It was presumed from this that such substances were converted into active agents against the organisms by some modification brought about by the living tissues. Still more recently substances have been found which are actively inhibitory and disinfectant against tubercle bacilli and which distribute coefficients in the human body which permit their reaching the foci of the bacilli in effective amounts.

It was found that several stains were capable of reaching the bacilli in their ultimate distribution and that some of them were capable of penetrating to the very interior of the tubercle.

It was found that methylene blue, trypan red and many of the azo dyes were capable of specifically penetrating the tubercle. An effort was made to build up with these dyes substances which would penetrate the tubercles and which were also destructive to the bacilli. Combinations of these dyes with iodine, phenol, creosote, etc., were tested on infected animals. Creosote combinations seemed to best preserve their inhibiting and penetrating power, and their use in infected animals seemed to prolong their lives. The results, however, have not been better than from the use of tuberculin. Dr. Lewis thinks that there is a hopeful future for the chemotherapy of tuberculosis, although his experiments have not yet resulted in any very marked success.

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Recent announcement has been made of the death of Dr. Philip Mills Jones, secretary of the Medical Society of the State of California and editor of its journal.

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Electrotherapy in Pneumonia.

Price (Am. Jour. Electro Therapeutics) claims that in the stages of engorgement and hepatization in pneumonia thermopenetration gives prompt relief. Two uncovered metal electrodes are placed at opposite points over the involved area. The electrodes should be of the same size for central lesions—7 by 8 inches. If the lesion is nearer one electrode it should be larger. The application should be begun with 10 milliamperes and increased to a milliamperage of 1,700 to 2,000 and continued for 20 or 30 minutes. It may be repeated in six hours and eight hours thereafter. Resolution usually occurs in forty-eight hours and marked amelioration of all symptoms is immediate.

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Electrolysis in Gonorrhea.

The Medical Record (December 9) reviews the reports of L. Virghi and Russ of London in the use of electrolysis in the treatment of gonorrhea. L. Virghi reported ninety-two cases with 100 per cent of cures. The value of this method of treatment is confirmed by Russ, who has reported one hundred cases, sixty-nine of which were acute and thirty-one chronic. In the sixty-nine acute cases the average number of treatments required was sixteen.

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Kerosene Treatment in Laryngeal Conditions.

T. M. Clayton advises the employment of kerosene in cases of laryngeal diphtheria — together with antitoxin — spasmodic croup, and so-called membraneous croup in young children. The dosage is thirty minims every four hours for three doses, then ten-minim doses three or four hours daily until normal breathing has been established. The unpleasant taste of the kerosene may be disguised by sarsaparilla.—British Medical Journal.

Bacteria an Etiologic Factor in Poison Oak Dermatitis.

Dr. Lowell C. Frost (Med. Record Dec. 23) advances some evidences of the bacterial etiology of poison oak dermatitis. In his opinion the manner of infection, the course and spread of the disease are not consistent with the theory of a chemical irritant.

Some cultures were made of the organisms found on poison oak leaves and one is described which seemed to be most constant. The cultured organisms, however, seemed to have lost their virulence. At any rate the reaction was very mild and not characteristic of poison oak dermatitis.

———R———

Picric Acid in Erysipelas.

Critzman claims good results in erysipelas from the use of picric acid solution. The solution used is 1 to 1,000 with twelve grams of alcohol added to the liter of solution. The affected area is painted with the solution and a dry cotton dressing applied. This is repeated every twelve hours. Usually the eruption is checked in three days with a rapid drop in temperature and general improvement in conditions.

———R———

Dr. A. B. Jeffrey of Topeka sailed on December 23 for England, where he is under contract for service with the army medical department. He expects to be away a year at least.

———R———

The Lecture Bureaus.

Because there has been some confusion over the two lecture bureaus, and because there have been some additions to the list of lectures in both, we are publishing a revised list.

LECTURES FOR REGULAR MEETINGS.

Lectures in this list are for regular meetings of county societies. For lecture dates with any of these lecturers address Journal of the Kansas Medical Society, 612 Kansas Ave., Topeka.

LIST OF SUBJECTS AND LECTURES.

Dr. John Sundwall, Department of Anatomy, Kansas University, Lawrence.
(1) The Structure and Function of the Ductless Glands.
(2) Otonomic Nervous System.

Dr. C. C. Goddard, Leavenworth.
Sexual Perversion and Its Effects on Mental Stability.

Dr. W. K. Trimble (K. U. Clin. School of Med.), Kansas City, Mo.
Syphilis.

Dr. W. F. Bowen, Topeka.
Cholelithiasis.

Dr. R. C. Lowman, Kansas City, Kansas.
(1) Fractures of the Skull.
(2) Acute Surgical Conditions of the Abdomen with Particular Reference to Diagnosis.

Dr. C. F. Menninger, Topeka.
Cystoscopy.

Dr. Richard L. Sutton, Kansas City, Mo.
(1) Treatment of Skin Cancer — Skin Clinic.
(2) Treatment of Syphilis—Skin Clinic.

Dr. W. W. Duke, Kansas City, Mo.
(1) The Practical Treatment of Diabetes Mellitus.
(2) The Systemic Effects of Certain Focal Infections.
(3) The Relations of the Internal Secretions to Development and Health.

Dr. Ralph Major (K. U. Clin. School), Rosedale.
Etiology of Nephritis (illustrated).

Dr. E. J. Curran (K. U. Clin. School), Rosedale.
Glaucoma and Its Relation to General Medicine.

Dr. M. T. Sudler (Dean Clin. School), Rosedale.
Diseases of the Prostate (illustrated).

Dr. A. L. Skoog, Kansas City, Mo.
(1) Brain Tumor. Lantern slide demonstration.
(2) Cerebrospinal Fluid Work. Lantern slide demonstration.
(3) Acute Poliomyelitis. Lantern slide demonstration.

Dr. C. C. Nesselrode, Kansas City, Kan.
(1) Modern Conception of the Cancer Problem.
(2) Heat in the Treatment of Inoperable Carcinoma of the Uterus.

Dr. T. G. Orr, Kansas City, Mo.
Pyloric Stenosis in Infants.

PUBLIC HEALTH LECTURES FOR PUBLIC MEETINGS.

Every county society is expected to hold at least one public meeting during the year and these lectures have been arranged for the convenience of the secretaries in getting up a program for such meetings. For lecture dates with any of

these lecturers write to Dr. C. C. Nesselrode, 513-515 Portsmouth Building, Kansas City, Kansas.

"The Development of the Nervous System in Children," Dr. O. D. Walker, Salina, Kansas.

"Relation of Mental Instability Toward Society," Dr. C. C. Goddard, Leavenworth, Kansas.

"Submarines in Medicine," Dr. Marion Truehart, Sterling, Kansas.

"Eugenics," Dr. J. A. Dillon, Larned, Kansas.

"Oral Hygiene and Prophylaxis," Dr. J. A. Dillon, Larned, Kansas.

"Kansas and the Tuberculosis Problem," Dr. C. S. Kenney, Route 1, Norton, Kansas.

"Prevention and Treatment of Tuberculosis," Dr. W. E. Currie, Sterling, Kansas.

"Causes and Effects of Faulty Breathing," Dr. J. R. Scott, Newton, Kansas.

"Causes and Treatment of Cancer," Dr. O. D. Walker, Salina, Kansas.

"The Typhoid Fly," Dr. S. J. Crumbine, Topeka, Kansas.

"Hidden Dangers," Dr. J. E. Sawtell, Kansas City, Kansas.

"Preventable Blindness," Dr. J. W. May, Kansas City, Kansas

"Rural Sanitation," Dr. G. G. Sippy, Topeka, Kansas.

"Factors Other Than Medical in the Causation of Death," Mr. W. J. V. Deacon, Topeka, Kansas.

"Food Adulteration," Mr. Leon Congdon, Topeka, Kansas.

"Child Hygiene," Dr. Lydia Allen DeVilbis, Topeka, Kansas.

"Infections," Dr. Emma L. Hill, Oswego, Kansas.

"What Preventive Medicine Has Done for Civilization," Dr. Marvin T. Sudler, Rosedale, Kansas.

"Cancer: What It Is and What We Know About It," Dr. Marvin T. Sudler, Rosedale, Kansas.

"The Cancer Problem," Dr. C. C. Nesselrode, Kansas City, Kansas.

"The Co-operation of Parents and Teachers in Detecting Physical Defects in Children," Dr. Hugh B. Caffey, Pittsburg, Kansas.

"Boys, Cigarettes and Tobacco," Dr. C. W. Reynolds, Holton, Kansas.

"The Problem of Social Diseases—The Great Social Evil—Eugenics—Individual and Racial Development—Individual Repeats History of Race," Dr. Howard N. Moses, Salina, Kansas.

"The Importance of the Medical Examination of School Children to the Individual and Community." Frank White, M. D., Emporia, Kansas.

SOCIETY NOTES.

STAFFORD COUNTY SOCIETY.

The annual meeting of the Stafford County Medical Society was held in Stafford Wednesday, December 20. Dr. L. E. Mock of St. John was elected president, Dr. J. A. H. Webb of Stafford vice-president, Dr. J. T. Scott of St. John secretary-treasurer. One new member was added to the roster, Dr. Edna Wallace of Stafford.

A banquet was served at the Brinkman Hotel in the evening, which was attended by almost the entire membership of the society with their wives.

As guests there were present local dentists, druggists, newspaper representatives and the county representative-elect.

Many good talks were made and a general all-round good feeling prevailed.

The society meets regularly on the second Wednesday of the month with the exception of July and August.

J. T. SCOTT, St. John, Kan.

WYANDOTTE COUNTY SOCIETY.

The annual meeting of the Wyandotte County Medical Society was held on December 19 and the following officers were elected: President, E. A. Reeves; secretary, L. F. Barney; treasurer, Thomas Richmond; censor, E. D. Williams. The following were elected delegates to the annual meeting of the State Society: Geo. M. Gray, J. E. Sawtell, J. F. Hassig, G. D. Mabie, C. C. Nesselrode; alternates, R. C. Lowman, Preston Sterrett, E. J. Lutz, C. J. Lidikay, L. Leverick.

MONTGOMERY COUNTY SOCIETY.

The annual banquet and meeting of the Montgomery County Medical Society was held at the Carl Leon Hotel in Independence. The ladies were present, making an atatendance at this meeting of fifty-two.

The address of the evening was given by Rev. G. B. Merritt, pastor of the First Baptist Church. The following officers were elected: President, W. G. Norman, Cherryvale; secretary-treasurer, J. A. Pinkston, Independence; delegates, I. B. Chadwick, Tyro, H. L. Aldrich, Caney; alternates, W. H. Wells, Coffeyville, and W. E. Young, Cherryvale.

Dr. Hattie B. Aldrich was elected to membership in the society.

J. A. PINKSTON, Secy.

REPUBLIC COUNTY SOCIETY.

The Republic County Medical Society held its annual meeting at the offices of Drs. Kamp and Thomas in Belleville, Wednesday evening, November 29. The following officers were elected for 1917: President, D. E. Foristall, Republic City; vice-president, J. E. Sherrard, Norway; secretary-treasurer, H. D. Thomas, Belleville.

A case of septic embolism was reported and a case of gangrene of the feet caused by freezing. The next meeting will be held during the first part of 1917 when one of the lectures from the Lecture Bureau will be secured. A public meeting is also planned for later in the spring.

H. D. THOMAS, Secy.

ALLEN COUNTY SOCIETY.

The Allen County Medical Society, at its regular annual meeting, elected the following officers for 1917: President, J. S. Sutcliff, Iola; secretary, J. G. Walker, Iola.

LINCOLN COUNTY SOCIETY.

At the annual meeting of the Lincoln County Medical Society Dr. O. R. Wolfe of Beverly was elected president and Dr. Malcolm Newlon of Lincoln was elected secretary.

BOURBON COUNTY MEDICAL SOCIETY.

The Bourbon County Medical Society met in regular session at the Library building, Ft. Scott, Kansas, Monday evening, December 18, 1916, with the following members present: C. A. VanVelzer, E. B. Payne, M. F. Jarrett, C. F. Young, J. R. Newman, R. Aikman, J. J. Cavanaugh, J. D. Hunter, J. C. Lardner, L. W. Griffith, W. S. McDonald, W. L. Hopper, J. A. Connor, R. J. Whitfield, W. S. Miller.

Visitors present: J. F. McGill, Fort Scott; R. W. Crume, Richards, Mo.; A. G. Altrum, Metz, Mo.; C. C. Conover, Kansas City, Mo.

The following officers were elected for the ensuing year: R. J. Whitfield, president; W. S. Miller, vice-president; W. S. McDonald, treasurer; C. F. Young, secretary. Censors: R. Aikman, one year; J. C. Lardner, two years; J. D. Hunter, three years.

Dr. J. R. Brinkley, of Fulton, Kansas, was elected to membership in this society.

This being the time for our annual banquet, all retired to the Goodlander Hotel, where a sumptuous dinner was served.

After the banquet, Dr. Conover presented a very interesting and original discourse on intestinal stasis, demonstrating same with lantern slides.

C. F. YOUNG, Secy.

WILSON COUNTY SOCIETY.

The Wilson County Medical Society held its December meeting at Neodesha, December 14. There were twelve or fourteen visiting physicians and surgeons.

The meeting was held in the Commercial Club rooms and was called to order by the president, Dr. W. H. Young. Dr. R. K. Dodge of Fall River was elected president for 1917, and Dr. E. C. Duncan of Fredonia, secretary and treasurer.

Short addresses were given by the visiting physicians, among whom were Dr. M. T. Sudler of Lawrence, Drs. T. R. Edwards, L. D. Johnson, Mathis, and E. A. Davis, Chanute; Drs. Smith, Surber, DeMott, and Hudeberg, of Independence; Dr. James of Joplin, and Dr. West of Monett.

Short talks were made by various members of our County Society, after which coffee and sandwiches and ice cream were served.

This was the day of the opening of the new County Hospital at Neodesha. Wilson County now has one of the finest little hospitals in Kansas. Bonds were voted two years ago, and a state law passed in 1913.

The County Society had made arrangements for a free clinic day December 14, and invited specialists to participate, and we were certainly well pleased with the opening day.

Twenty-five operations were performed, and no accident or unpleasantness of any kind occurred. At this time, two weeks later, we can say that the operations were successful. Two operating rooms were in constant use from 10:00 a. m. until 5:30 p. m. All operations were performed free, the patients paying their hospital fees.

Every county in Kansas and every town of over 3,000 population should have a hospital, and it can be done.

E. C. DUNCAN, Secy.

RICE COUNTY MEDICAL SOCIETY.

The members of the Rice County Medical Society and their families, after being entertained at dinner through the courtesy of Drs. Trueheart and Little, convened in the parlors of the Sterling Hospital.

Owing to the absence of the secretary's records the minutes of the previous meet-

ing were deferred to the December meeting.

After the presentation of an interesting clinic by Dr. M. Trueheart, the following program was given:

Cesarean Section, Dr. M. Trueheart.

Tuberculosis, Dr. M. L. McCrea.

The papers were both interesting and instructive and brought out a good discussion on the part of the doctors present.

Dr. Currie reported a very interesting case of central placenta previa.

A vote of thanks was presented Drs. Ross and Currie, and Drs. Trueheart and Little, for the entertainment of the society.

J. M. LITTLE, Secy.

LINN COUNTY MEDICAL SOCIETY.

The Linn County Medical Society met in the club rooms at Mound City, Kansas, December 8. At a previous meeting ways and means were discussed by which we might inject new life into the society and get out a full attendance. It was unanimously voted that we have a lecture delivered by some of the prominent members of the profession at each meeting. The secretary was instructed to write and secure some one.

Dr. C. C. Conover, of Kansas City, Mo., favored the society by his presence, held a clinic and gave us a very interesting and instructive talk.

This is the first time in a year that four-fifths of the physicians of our county were present.

We extend a cordial invitation to any member of the State or County Societies to visit us.

The next meeting will be January 12.

H. M. BARNES, Secy.

MIAMI COUNTY SOCIETY.

The Miami County Medical Society held its meeting on December 29, 1916, and the following members were present:

Drs. Van Pelt, Speer, Walthall, Robinson, Riley, Helton, Carmichael, Harrington, Frazer, McDaniel and Scollick.

The following scientific program was given:

"Some Remarks on General Anesthesia," Dr. L. A. Van Pelt.

"Senile Paraplegia," Dr. J. J. Harrington.

"Erysipelas," Dr. B. F. Frazer.

"Blood Pressure Observations in a Series of Uremic Convulsions," Dr. F. L. McDaniel.

BOOKS.

Blood Pressure.

Second edition. From the clinical standpoint, by Francis Ashley Faught, M.D., formerly director of the Laboratory of Clinical Medicine at the Medico-Chirurgical College, Philadelphia. Second edition, thoroughly revised. Octavo of 478 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1916. Price $3.25 net.

There is perhaps no diagnostic procedure so generally used with findings so inaccurately or indefinitely interpreted as sphygmomanometry. The degree of modification by the various conditions which affect blood pressure must be known if sphygmomanometry shall reach its highest point of value. Wide experience with careful observation is especially necessary to determine working standards for practical purposes and the practitioner naturally looks to those who have had such experience to point out the value of various blood pressure indications. Faught, having long been recognized as authority on this subject, has done well to present a second edition of his book, giving the profession the benefit of such recent data as have accumulated since the first edition was published. In this edition a larger amount of clinical material has been used and many charts have been introduced illustrating the various types of blood pressure changes.

Constipation, Obstipation and Intestinal Stasis.

Second edition, enlarged. Constipation, Obstipapation and Intestinal Stasis by Samuel Goodwin Gant, M.D., LL.D., Professor of Diseases of the Colon, Sigmoid Flexure, Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Second edition enlarged. Octavo of 584 pages, with 258 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $6 net; half morocco, $7.50 net.

Although the first edition of this book was published only a few years ago, the author has found in the increased knowledge of and greater interest in intestinal stasis a sufficient reason for a considerable revision of the text, and the addition of several new chapters, of which the most important are: Pericolitis, Perisigmoiditis, Mesocolitis, Diverticula, Diverticulitis, Peridiverticulitis, Diseases and Incompetence of Ileocecal Valve, Cecum Mobile, Lane's Kinks, Myxorrhoea Coli and A Resume of Intestinal Stasis.

The use of physical measures in the treatment of these conditions has been emphasized by the author, who believes that colectomy, short circuiting, and other major surgical procedures are resorted to

very much more frequently than is justified.

The Clinics of John B. Murphy.

Volume V, Number 5 (October, 1916). The Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Octavo of 210 pages. Philadelphia and London: W. B. Saunders Company, 1916. Published bi-monthly. Price per year, paper $8, cloth $12.

One of the very interesting features in the October number of the Clinics is "A Talk on Varicose Veins and Varicose Leg Ulcers," and another is "A Series of Sketches Showing a Method of Treating Alkylosis of the Finger by Grafts of Costal Cartilage."

There are several clinics covering injuries and diseases of the bones of the face, also a number of clinics on tumors and malignant growths that are exceptionally interesting.

The Clinics of John B. Murphy, M.D.

Volume V, Number 6 (December, 1916), at Mercy Hospital, Chicago. Octavo of 217 pages, 47 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published bi-monthly. Price per year, paper $8, cloth $12.

The December number, which is also the last number of the Murphy Clinics that will appear, will be of exceptional interest to those who have been regular readers and to those who were fortunate enough to have known Dr. Murphy, heard him lecture or witnessed his operations.

This number contains letters, *in memoriam*, from Drs. Wyllys Andrews, J. F. Binnie, Geo. W. Crile, John B. Deaver, Ernest LaPlace, Edward Martin, and Sir Arbuthnot Lane and Sir Rickman J. Godlee. It also contains a full and detailed account of the last illness of Dr. Murphy by Drs. C. L. Mix, R. H. Babcock, J. E. Keefe and W. A. Evans.

The index to Volume V is very complete and in connection with it is a list of the writings of Dr. Murphy.

It is needless to say that a complete set of the volumes of Murphy Clinics will be a treasure in any physician's library.

The Medical Clinics of Chicago.

Volume II, Number 3 (November, 1916). Octavo of 211 pages, 44 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published bi-monthly. Price per year, paper $8, cloth $12.

The November number of the Medical Clinics of Chicago just recently received contains a clinic by Dr. Walter B. Hamburger on "The Modern Medical Treatment of Chronic Ulcer of the Stomach and Duodenum," a clinic by Dr. Isaac A. Abt on "Infantile Paralysis," and one by Dr. Ralph C. Hamill on "Acute Anterior Poliomyelitis." Dr. C. L. Mix reports two cases of "Primary Pernicious Anemia." There is a contribution by Dr. William Allen Pusey on "Some Cases of Eczema from External Irritation."

Dr. Frederick Tice gives a clinic covering a case presenting Addison's Syndrome and a case of gangrene of lung. Dr. Herman L. Kretschmer has a clinic on "The Treatment of Chronic Colon Pyelitis by Pelvic Lavage." Dr. Charles Spencer Williamson presents a case of Polycystic Kidneys, one of Recurrent Endocarditis with Cerebral Embolism, and one of Gout. Dr. Frank Smithies shows a case of "Spasm at the Cardia and Cardiospasm with Diffuse Dilatation of the Esophagus."

International Clinics.

Volume IV of the Twenty-Sixth Series. A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, with the collaboration of Chas. H. Mayo, M.D. Published by J. B. Lippincott Company, Philadelphia and London.

Every article in this number of the Clinics is one which will readily appeal to the practitioner, but there are several of special interest which we will mention. Under the head of Medicine there is an article by John A. Lichty on "A Clinical Consideration of Migraine," one by James J. Walsh on "Insomnia as a Dread," and one by Jay Perkins on "Difficulties and Errors in the Diagnosis of Pulmonary Tuberculosis." Under the head of Pediatrics there are three very excellent articles. One of the very interesting articles in this volume is on "The Psychology of the Criminal Under Sentence of Death," by Paul E. Bowers. There are several very instructive surgical clinics, among which we will mention one by Astley P. C. Ashurst on "Surgical Experiences with Encapsulated Empyema and Abscess of the Lung," another by Vilray P. Blair on "The Treatment of Cleft Palate and Harelip in Early Infanry." This article is very profusely illustrated. An article by P. B. Magunson on "Backache" will be of great interest to everyone.

The Practical Medicine Series.

Under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern Medical School. Price of this series, $10. The Year Book Publishers, 327 So. LaSalle Street, Chicago.

Volume VII—Obstetrics.

Edited by Joseph B. De Lee, A.M., M.D., Professor of Obstetrics in the Northwestern University Medical

School, with the collaboration of Herbert M. Stowe, M.D., Assistant Professor of Obstetrics, Northwestern University Medical School; Attending Gynecologist to Cook County Hospital.

Volume VIII—Therapeutics—Preventive Medicine.

Materia Medica and Therapeutics. Edited by George F. Butler, Ph.G., A.M., M.D., Emeritus Professor of Therapeutics, Chicago College of Medicine and Surgery.

Preventive Medicine — Edited by Wm. A. Evans, M.S., M.D., LL.D., Ph.D., Professor of Preventive Medicine, Northwestern University Medical School.

These are volumes of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete on the subject of which it treats for the year prior to its publication.

THERAPEUTIC NOTES.

The Board of Health of Kansas has entered into an agreement with E. R. Squibb & Sons to provide for all the biological products recognized by it. These products are all to be of Squibb manufacture and are to be distributed under the state supervision.

In order that, in accordance with this agreement, these products may be readily accessible, they have established distributing stations throughout the state. These official distributers will keep on hand a fresh stock of Squibbs' diphtheria and tetanus antitoxins, and also of Squibbs' typhoid and small pox vaccines. On demand they will furnish these to any physician at special prices established by the Board of Health.

The Squibb biological products have received favorable recognition not only by the medical profession in general, but also by many state, county and city boards of health, each of which has entered into special contract for the exclusive use of the Squibb products.

The Squibb Biological Laboratories are situated at New Brunswick, New Jersey, and are under the direction of Dr. John F. Anderson, the former director of the Hygienic Laboratory of the U. S. Public Health Service at Washington, D. C. Dr. Anderson has as assistants a corps of trained men, each a specialist in his own line.

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We have received a copy of the special number of Mulford's Digest, which has some exceptionally good articles.

A contribution by Dr. A. L. Garbat of the Pasteur Institute, Paris, France, is of unusual interest. Garbat is recognized as one of the leading immunologists of the world, and his work with sensitized bacterial vaccine (serobacterins) in co-operation with Besredka of the Pasteur Institute, has been of great value in determining its superiority over unsensitized vaccines.

Of no less interest is Dr. George H. Robinson's paper reporting the results of his researches on the standardization of antimeningitis serum, and now that a reliable test has at last been devised for securing uniformity, the efficiency of the serum as a therapeutic agent will be correspondingly increased.

Much light has been thrown on the treatment of mixed infections with mixed bacterins by the investigations of Smith (see page 128) proving that the inoculation of a mixture of pathogenic organisms gives rise to specific antibodies antagonistic to each, and corroborating those of Castellani, who, as you are doubtless aware, is immunizing against typhoid fever, paratyphoid, cholera and malta fever with a mixed bacterin.

The testicular method for preparing small pox vaccine as worked out by Noguchi is described by Dr. Elgin and the paper by Dr. Paul S. Pittenger dealing with mercurialized serum, now extensively employed in the treatment of syphilis, are interesting and practical subjects.

Much of the original research work reported was done by the scientific staff of the Mulford Company, which illustrates the service the Mulford laboratories are rendering the profession by carrying out its policies.

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The Making of Ampoules.

An illuminating article on the manufacture of glaseptic ampoules of sterilized solutions, as conducted in the laboratories of Parke, Davis & Co., appears in a recent issue of Therapeutic Notes. It is noteworthy because of the emphasis placed upon the careful methods which are essential in the production of both solution and container.

"First of all," says the Notes, "the greatest care is taken in the selection of the glass from which the ampoules are made. It is of the first quality, and must be free from alkali in order to obviate any possibility of contamination or chemical action on the solution. This is vital, for it is imperative that the purity and stability of the contents of the ampoule be assured.

"The medicaments used in preparing

solutions are treated with the most suitable solvents—e. g., oils, distilled water, or physiologic salt solution—and the solutions are invariably adjusted to a fixed standard of strength; that is, each contains a specific amount of medicament to a given volume, thus insuring accuracy of dose. The solutions are subjected to the process of sterilization, either by heat applied in an autoclave, at intervals, for four or five days, or by passage through a Berkefeld or Pasteur porcelain filter. They are then passed into sterilized bottles, and samples are submitted to the biological department for a series of sterility tests that extend over a period of five days.

"The ampoule containers, cleansed and sterilized, are filled with the sterilized and tested solutions by machinery. The neck of each ampoule is hermetically sealed in a gas flame, and ampoules and contents are again subjected to the sterilization process, this time by the careful application of heat, care being taken to adjust the temperature of the apparatus to such a degree that the medicament will not suffer injury. The hermetically sealed container effectually protects the solution from bacterial contamination and oxidation, while the actinic effect of light is prevented by enclosure of each ampoule in an impervious cardboard carton."

As indicative of the trend in hypodermatic medication it may be noted that more than sixty sterilized solutions are now supplied by Parke, Davis & Co., in glaseptic ampoules. Convenience, asepsis, stability, accuracy of dose—solutions in ampoules appeal to modern practitioners on these grounds.

℞

Blood analysis has yielded such important results that it is now widely used in the Battle Creek Sanitarium. The services of one chemist and his assistant are now exclusively given to this work. About 22 c.c. of blood are taken from the arm of the patient, potassium oxalate being added to prevent clotting. Disturbance of the renal functions commonly attends many diseases, and this is revealed in the contents of the blood. Constituents chiefly sought for as being most significant are total non-protein nitrogen, uric acid, urea nitrogen, creatinin and sugar. The findings have been especially valuable in detecting kidney disease. Urinary analysis may reveal only one-half of the incipient cases, while blood analysis makes certain the diagnosis in the other 50 per cent. In diabetes, this new test is particularly important as determining accurately the degree of the disturbance of metabolism, while it also enables the physician to learn exactly the effect of the treatment he is giving. Partial tests, such as finding only the uric acid or total non-protein nitrogen, are not always satisfactory. In addition the urea and creatinin should be determined.

Another test of value is the finding of the reserve alkalinity or acidosis of the blood, as this condition accompanies many kinds of disturbances of metabolism and in some cases indeed is the most important to be recognized by the test and looked after by treatment.

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THE JOURNAL
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Kansas Medical Society

Vol. XVII TOPEKA, KANSAS, FEBRUARY, 1917 No. 2

The Function of the Suprarenal Glands.

J. S. SUTCLIFF, M.D., Iola, Kansas.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

I fear that I cannot do justice to these little glands, of whose function so little has been known until recent years, in a paper of this kind. Therefore I am compelled to go over the subject rather superficially, giving you as best I can the conclusions drawn by various research workers.

We are all familiar with the action of the substances obtained from these glands under the names of adrenalin, suprarenalin, epinephrin, etc., which when injected intravenously invariably increases the blood pressure, due to a powerful contraction of the muscular walls of the vessels. The duration of these contractions is very short and in a few minutes the blood pressure returns to normal, showing that in some manner the substance has been destroyed or neutralized. It has been proven that these secretions form part of the respiratory mechanism as a constituent of the hemoglobin. By supplying a substance which absorbs the oxygen of the air in the pulmonary alveoli, it then becomes a part of the hemoglobin and of the blood plasma, which in turn carries it as the oxidizing principal to all tissues.

Various theories have been advanced regarding the gaseous changes between the blood and the alveolar air, evidence has been steadily increasing in favor of the secretory theory especially as regards the absorption of oxygen. That the secretions of the supra-renal glands has a marked affinity for oxygen and that the secretions reach the pulmonary air cells has been clearly demonstrated. If the blood be taken from the supra-renal vein and injected intravenously it will produce the characteristic effect of adrenalin extract and it can be traced in the blood of the inferior vena cava, right heart, pulmonary arteries and the lungs, such effects cannot be obtained from blood obtained from any other part of the system. Ninety-six per cent of the hemoglobin is composed of an albuminous substance, which corresponds in its physiochemical properties with the adrenal secretion.

We also find that injections of suprarenal extracts cause a slowing of the cardiac action, which is due to the stimulation of the vagus centers, thus inhibiting the heart's action. We also find that it has a direct action (contraction) on the cardiac muscles and the muscular coats of arteries and arterioles, independent of any cerebral nerve center, on the other hand the capillaries having no muscular walls become dilated on account of increased blood pressure.

Demonstrations have shown that after the cord had been cut above the atlas and all cervical nerves divided, and, when the blood pressure had fallen to 24 millimeters, an injection of adrenal extract immediately caused it to rise to 144 millimeters, the experiment was repeated three times at intervals of from fifteen to thirty seconds, the second time, when it had fallen to 17 mm., an injection caused it to rise to 134, the third time, from 24 to 124,

thus showing that its action was independent of the vagus and other cerebral centers.

It is the adrenal secretion which, after absorbing oxygen from the pulmonary air and being taken up by the red corpuscle, supplies the whole organism including the blood with its oxygen, it is as such the oxidizing constituent of the hemoglobin which in turn sustains tissue oxidation and metabolism.

Adrenalin preparations are familiarly known to raise the blood pressure, but obviously this tells us only what they do, and not how they do it. This becomes clear however when the adrenalin secretion as the active constituent of the hemoglobin is regarded as the oxidizing agent of the tissues, and as such an active factor in metabolism. The muscular elements of the arteries being themselves the seat of increased metabolic activity, they are caused to contract, thus raising the blood pressure. Should the supra-renal gland be removed or destroyed it would be followed by a gradual reduction in the temperature, followed by death; on the other hand, an excess of adrenalin secretion causes an increase of temperature. In its relation to general diseases, the identity of the adrenals as the controlling agent of oxidation accounts for that ever prevailing symptom fever, the mechanism of which has so long remained obscure. When we review the remedies that have so long been used empirically to reduce fever, we find that they have been agents that have a tendency to reduce blood pressure as aconite, veratrum veridi, the coal tar products and all of which have a tendency to counteract the over-stimulation of the suprarenals in its early stage, yet no one would think of giving these agents when reaction had set in, the fever reduced, a rapid pulse, with low blood pressure, weakness and exhaustion, as we find when these organs have been over stimulated.

The next question we might ask is, How are these glands and their secretions affected by disease? If these glands are removed there immediately follows a great fall of blood pressure, feeble and rapid cardiac action, and death within thirty-six hours, the same condition arises when the functions of these glands are destroyed by disease or otherwise.

These symptoms may however be overcome by the injection of the adrenalin secretion or their extracts, but the results are of short duration, showing that there must be a continuous normal flow of the secretion in order to maintain a normal equilibrium. That the amount of the secretion varies within physiological limits, there can be no doubt, yet there are times under certain conditions that these variations become pathological, which may be due to functional or organic conditions of the glands or their nerve supply. Among the most common causes is congestion or venous stasis, due to toxines, poisons, venoms, and drugs in excessive doses.

Os the toxines, those produced by pneumonia, diphtheria, scarlatina, variola, tuberculosis, meningitis, cancer, septicemia, uremia, and many other diseases are prominent factors, all of which have a tendency to stimulate the glands and cause increased temperature. If this stimulation is kept up too long, it is followed by a period of depression from over-stimulation, which results in adrenal insufficiency, or hypo-adrenia.

We distinguish three classes of adrenal insufficiency, functional, progressive and terminal.

Functional adrenal insufficiency is that condition in which the adrenals though not the seat of organic lesions are functionally deficient because of tardy development, debilitating influences, such as fatigue, starvation, old age, etc.

It is frequently met with in all stages of life. In infancy and childhood we are all familiar with the signs of this condition. Take on the one hand the ruddy, warm, hard-muscled, heavy, out-of-door, romping child with keen appetite and normal functions, as being one in which the adrenals are acting in a normal condition. He is ruddy and warm because oxidation and metabolism is perfect, and blood pres-

sure sufficiently high to keep the peripheral tissues well filled with blood. On the other hand, we see the pale, emaciated, pasty child with cold hands and feet, flabby muscles, whose appetite is abnormal, the emaciation and the cold extremities indicating deficient oxidation, metabolism and nutrition, owing to torpor of the adrenal function. The pallor is mainly due to deficiency of the adrenal principles in the blood, and to the resulting low blood pressure which allows the blood to remain in the large vessels, as contracted arteries always cause dilated capillaries, and vice versa.

In the adult we see examples of hypoadrenia in those cases in which the adrenals are exhausted by the excessive secretory activity that excessive labor or exercise imposes upon them. Fatigue is a prominent factor in this connection. In old age we find reduction in the size of the adrenal blood vessels, with shrunken adrenals, thus the asthenia of old age finds a normal explanation in a deficient supply of adrenal secretion.

2. Addison's disease, or progressive hypoadrenia, is that form of adrenia in which all but a small portion of the gland has been rendered physiologically inactive by organic disease or its nerve supply, which is characterized by progressive asthenia, weak heart action, hypotension, hypothermia, dyspnea, all of which are self evident results of deficient oxidation and metabolism, and bronzing of the skin which appears as a late symptom of the disease.

3. Terminal hypoadrenia is that form of adrenal insufficiency which occurs late in the course of an acute febrile disease, as a result of the exhausting secretory activity.

Having gone over in a brief manner the results of insufficient secretion of these glands, we will now briefly review the results of excessive secretory activity, or hyperadrenia, which for convenience of description we might again divide into three classes; as simple hyperadrenia, acute hyperadrenia, and adrenal hemorrhage.

Simple hyperadrenia is that condition of the adrenals which manifests itself by slowing of the heart's action, constriction of the blood vessels and increased blood pressure, with slight increase of temperature.

Acute hyperadrenia is that condition of the adrenals which precedes adrenal hemorrhage in any febrile disorder or intoxication, and the danger signal of which is hyperpyrexia. This condition may be brought about by many poisons, drugs and toxins.

Adrenal hemorrhage, which might be defined as an extravasation of blood into one or both adrenals, due to rupture of some of their blood vessels, when as a result of high blood pressure through the body from any cause, as toxines, toxic waste, drugs, etc., these vessels are subject to centrifugal pressure which exceeds the resistance of their walls.

In these cases death occurs sometimes more or less suddenly in the course of the causative disorder, or in fact sometimes before its exact nature has been determined, though in most cases the lethal collapse is preceded by purpuric spots. In scarlatina, measles or variola for example, the eruption may itself show a change, each patch assuming a bluish or cyanotic tinge accompanied by vomiting, and diarrhea, as a result of marked congestion of the alimentary canal. These symptoms are followed by collapse and death. These are the cases referred to by older writers as hemorrhagic measles, scarlatina, variola, etc. This condition usually terminates fatally in from a few to forty-eight hours.

Adrenal hemorrhage in the adult is not so common, yet it does occur from various causes, as nephritis, eclampsia, convulsions, epileptic fits, or any condition that produces marked increase in the blood pressure, especially where there is atheromatous degeneration of the blood vessels many of these cases are mistaken for cerebral apoplexy.

Adrenal hemorrhage is a common oc-

currance pathologically and a frequently overlooked cause of death. Out of 150 post mortems taken at random, thirteen had adrenal hemorrhage, aside from many cases of simple congestion; the proportion was much greater when infectious disease had been the cause of death. In patients dying of infectious diseases, peritonitis, shock, etc., adrenalin extract is absent or very scanty in the blood of the suprarenal veins.

As to the diagnosis of hyperadrenia, the most important point in this connection is to differentiate clearly the prehemorrhagic from the posthemorrhagic phenomena. Careful attention to this will frequently be the means of saving life, as the prehemorrhagic symptoms include several which may be regarded as danger signals, to the effect that the blood pressure is dangerously high and that the adrenals are threatened.

In childhood the presence of high fever and high blood pressure in the course of any infection, especially when any eruption that may be present is accompanied by purpuric spots, if not avoided by appropriate treatment, the posthemorrhagic phenomena appear, ending in death in a few hours.

In the adult there are a great variety of disorders which, besides the acute infections, adrenal hemorrhage may suddenly complicate. If we remember that whenever blood pressure is high from any cause, as suggested by venous engorgement, venous pulse, facial congestion and a hard pulse, the danger can readily be forestalled.

In Woods' Therapeutics, published about twenty-five years ago, I remember reading that in pneumonia a temperature up to 103 was advantageous; this statement I could not understand, yet I find that the doctrine that fever up to a certain limit, as the outward expression of an autoprotective or immunizing process, is steadily gaining ground. If this be the case then the adrenals as direct factors in fevers become direct factors in protecting the body against disease, hence these glands assume a role in the economy, of very great importance. By their influence on oxidation they sustain life, while through their participation in immunity they defend life.

We might further say that the normal function of these glands is to elaborate an internal secretion, capable of neutralizing or destroying the poisonous substances resulting from muscular contraction.

It is my humble opinion that the time is not far off when we will find that surgical and other forms of shock are due to interference with the function of these glands. We have come to realize that the use of stimulants in the treatment of shock only aggravates the existing condition in a great many cases. The modern treatment of shock is by the subcutaneous or intravenous injection of adrenalin in normal salt solution. Digitaline, along with many other remedies, has been highly recommended, but we will see later on that this could only act by stimulating an already overstimulated condition.

A few words regarding the treatment of these various conditions:

In functional hypoadrenia mercury is said to occupy a high position among the stimulants of the adrenal system. Biniodide of mercury has been found extremely efficient in aborting scarlet fever, diphtheria, measles, variola, and many other infectious diseases. The beneficial action of calomel, so greatly in vogue by physicians of the present and past generation, can be explained by its stimulating action on the adrenals. It has been the almost universal custom to credit digitalis with acting upon the heart. If we divide the nerve supplying the adrenals, we arrest and prevent the action of digitalis. The action of digitalis as we understand it today is on the pituitary gland from which the adrenals receive their nerve supply, stimulating the secretions, therefore digitalis is a valuable remedy in selected cases, not, however, in the hypoadremia of old age in which we have atheromatous conditions of the vessels, or where the function has been overstimulated, leaving the

gland in an exhausted condition. In these conditions better results will be obtained from the following:

Thyroid gland grains 1, adrenal gland grains 2, blaud pill gr. 1 in capsule three times a day. The same will be found useful in the functional hypoadrenia of children. In the terminal form in severe cases the best results will be obtained by the intravenous injection of fifteen minims of the 1 to 1,000 adrenalin solution in half to one pint of saline solution. Give very slowly.

In the treatment of hyperadrenia, the physiological saline solution is the remedy par excellence. It does not increase the vascular tension as was formerly believed, even though injected intravenously, and any excess of fluid leaves the vessels at once. By reducing the viscidity of the blood, saline solutions tend to relax the blood vessels, by increasing its osmotic properties, it facilitates greatly in the penetration of the plasma into the lymph channels, thus further reducing the vascular tension. Saline solution should be used intravenously in emergency cases, subcutaneously in threatening cases, and per rectum in all cases in which there is likelihood of adrenal hemorrhage.

As to drugs and vasa dilators are indicated, as nitrate of amyl, nitroglycerine, chloral hydrate, veratrum veride, sweet spirits of niter especially in children; here we fall back on those old remedies which for centuries have been used empirically. And further we realize the advantage of the drip method of using saline solution as a routine treatment in post operative surgical cases.

I might here state that it was about two years ago that my attention was especially called to this class of cases, through a case that was brought into the hospital with a gunshot wound which passed through the tissues in the immediate region of the adrenals. The case ran a very severe and fatal course entirely out of proportion to the severity of the lesion. It was then that I asked myself the question, Is it possible that inflammatory conditions of the suprarenal capsule could be the cause of the much higher mortality of peritonitis when the upper part of the peritoneal cavity is involved, compared with that of the lower or pelvic cavity?

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Industrial Occupation and Recreation Among the Insane.

B. F. Frazer, M.D.

Osawatomie State Hospital.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

Normal employment is one of the best means of "treatment" that can be given most of our patients, when it can be adapted to the patient's capacity and not made burdensome, as so often happens unless the schedule of work is constantly supervised. Much can be done upon the wards to employ the activities of many who would otherwise be idle, and the product of their work and the benefit to the patients more than repay the efforts and expenses. The following is a brief account of a few methods employed in the Osawatomie State Hospital, by which the patients are best benefited, and at the same time making fair returns for some of the institutional expenses:

The need of employment among the female insane is equally as essential as that of the male, and when conducted with the proper supervision and classification, according to the individual requirements, much benefit may be had. In many cases the patients have a pressure of activity, and a certain amount of energy is going to be expended, either in pacing the floor, making noise, or passing sleepless nights, while others suffer from a reverse condition, in that they are content to sit idle all day, without any evidence of interest in any form of mental or physical diversion, yet when they are told to do some particular thing the order is obeyed, though when completed they again relapse into a state of brooding or inactivity. When such patients as these are taught some routine, and their thoughts turned into other channels, a prominent change is soon noted. It is a matter of common

observation that many patients having outdoor employment and recreation during the summer months, early show signs of a return to the former condition when they are retained on the wards during the winter.

I am incorporating in these few remarks the employment of male patients, but will say that many of the women are occupied in the laundry and in helping in the work about the wards. The art class consists of about one hundred women, and in this they are instructed and urged to do many kinds of needle work, make baskets, boxes and trays, weave rugs, or do any kind of work in which the normal woman finds employment and recreation in the home. The articles made in this department have often been exhibited, being now on display and for sale in a room at the Osawatomie State Hospital, where they attract quite a bit of just praise, as many of them show remarkable skill and much work.

While the women have been attracting attention with their efforts, no one has given the men credit for the work they are capable of doing and are doing, with a great benefit to themselves and at the same time making a fair contribution towards helping reduce the institutional expenses. The farm and gardens offer the best conditions for our class of patients, as a great many were doing farm labor before commitment. Here, those of the best physical health and of fair mentality are required, about thirty being used constantly, with additional help in the busy seasons, especially during the harvesting. These men like the work, and under very little supervision they put in about six hours of fairly efficient work every day, enjoying the best of physical health, without any nocturnal disturbance. The work about the barns demands the same class of men, for the herd has to be cared for, and enough men with sufficient intelligence are needed, so that with little supervision the milking can be done according to modern sanitary methods, while some help distribute the feed and clean the lots and stalls. Others see to the sheep, and all through the day they can be found somewhere among the pens at work. Most all of them seem to think they are absolutely necessary for the stock's welfare. In the care of the stock and barns about thirty men are used, all of whom apparently enjoy their work, for an escape is rarely ever reported from them.

When patients are picked out for the engine room and boiler house, they must be those of the least mental deterioration, for there would be too much danger here with any other class of men, besides the fact that it is necessary to have the ones with the best comprehension to get any work in such places. All the coal is handled and carried to the furnaces by patients, some being used to help the stokers.

The paint and carpenter crews consist of several men, the most of whom were formerly skilled, and yet retain a sufficient grasp on the old trade as to enable them to entirely complete a majority of the rough work. Such men would experience difficulty, and fail to adjust themselves to society for more than a very short period of time, though while under a regular daily routine they replace men that would demand a fair common labor wage. A majority of those men used in the above employments have ground paroles, so that little supervision is needed to prevent escapes, for the general conduct and appearance of some might easily classify them to strangers as wage earners.

A more deteriorated class can be used in the rock quarry, for they easily learn to carry and crush rock, and some are constantly getting out and preparing stone for repairs about the institution. Within the last two years, several of the more frequently used driveways have been remodeled, using large quantities of stone, all of which was gotten out and crushed by patients.

The care of the lawn and grounds is in the hands of one attendant and a bunch of the more deteriorated patients. This work is light and simple, as they have only to carry grass and leaves, pull weeds and

push lawn mowers, getting good results to themselves, both mentally and physically, as the open air and light exercise insures a much better appetite and less nocturnal disturbance than could otherwise be obtained.

A number of men are given no regular employment, but are sent out daily in squads called details, and at such times one attendant and a number of patients, from two to twelve, are sent, according to the particular job of work needed. These men find plenty of employment, for somewhere about the institution a little extra help is needed in some department.

The above occupations, hurriedly enumerated, are of great value, both to patients and the institution, but in the industrial department, a class of work is turned out that materially changes the expense account of the institution, and gives good training to those who may be able to take up the responsibility of residence away from an institution, in that they will have a fair knowledge of some trade. This work includes the making of brooms, shoes, harness, tinware and mattresses, such things being prominent in the role they play in swelling the yearly expenditures of the institution.

The following are some figures taken from the steward's books for the year 1914, in comparison with the same articles made during 1915, as the department has been installed one year, and is as yet only in its beginning. Last year six hundred pairs of slippers were made for indoor use, while the year before the same number was bought at a cost of 30 cents per pair. The uppers of such articles are made from carpets that have been condemned and later cleaned with high pressure steam. Two hundred dozen brooms have been made, and the only portion used not prepared at the institution is the wire, as the broom corn is grown, harvested and prepared by the patients, while the old sticks of former years are used many times. The cost of brooms for 1914 was 25 cents each for 2,000. The making of mattresses is another instance of valuable employment. From 120 to 140 have been bought here yearly. In 1914, 124 were purchased for $384.40, or a single mattress for a little over $3. These were of cotton with ordinary ticking, and when condemned all was lost, but the last year a system of renovation, using high pressure steam, has been employed, so that all the cotton is saved and worked over in new ticks at a cost little above the cloth used.

No new harness was bought in 1914, but $35 was expended for repairs. The industrial shop has done all repairing and turned out three complete sets of harness at a cost of $25 each, the pattern from which they were taken selling on the market for $75.

The yearly amount of tinware has amounted to $347, with an average of 475 pieces, both large and small, while last year 503 new articles were made, besides the necessary repairing on older material not sufficiently worn to authorize condemning.

The Recent Epidemic of Typhoid Fever at the University of Kansas.

JOHN SUNDWALL, M.D.,

University of Kansas Health Service.

A report of the recent epidemic of typhoid fever among students at the University of Kansas will no doubt be of sufficient interest to warrant its publication. Of course, every one has been greatly perturbed over its occurrence, and doubtless keen apprehensions, even now, are felt by some of the people over the state as to the welfare of the students in the future. That all concerned may know the situation as it was and now is, this report is submitted.

Further, the discussion may be of value in showing the inestimable worth of the labors and co-operation on the part of the various agencies concerned in the preservation of public health; the methods utilized in the epidemiological study, and a comparison of the course of the disease in both the non-inoculated and inoculated.

During the first week in October, 1916, a number of students consulted the staff of the Students' Hospital and Dispensary, complaining of lassitude and inaptitude for work. In most cases, a slight temperature persisted in spite of various therapeutic measures. Naturally typhoid fever was suspected. Blood cultures early confirmed the suspicions, and a serious epidemic of typhoid fever had made its appearance among the students of the University of Kansas. Twenty-two students had become practically simultaneously infected with typhoid bacilli, a condition of gravest concern to the university in general and to its health service in particular.

To find the source of infection was imperative. Whether we had to deal with some typhoid carrier who had widely disseminated the germs or whether the infection could be traced to some focus were important problems.

THE SOURCE OF THE EPIDEMIC.

The University Health Service sought the aid of the various activities at the university which are concerned with public health. All actively responded with invaluable service in the solution of the perplexing problem. The Secretary of the State Board of Health also manifested a keen interest in the affair and lent his various resources for investigation.

With such an array of experts, the source of infection was soon ascertained. Great credit is due those who gave their services in this cause. Of inestimable value was the ready co-operation between the University and the State Board of Health. Special mention should be made of the services of Joseph F. Welker, of the department of Sanitary Engineering, assisted by Paul A. Diehl; Dr. John J. Sippy, Epidemiologist for the State of Kansas; C. C. Young, Director of the State Water Survey; and Miss Myrtle Greenfield of that department.

Mr. Welker found that all the cases of typhoid fever had been in some manner connected with a certain boarding house. The following data is taken from his report: "Since it is possible that the source of the typhoid infection may have been from: drinking water, milk, food, contact with other cases or with fomites or a typhoid carrier, attention was paid to obtaining data relative to these sources, and since most of the patients had boarded at 'a certain house,' particular attention was given to these possibilities at this house." That milk was not a factor, was his conclusion, as eight other houses in the vicinity obtained milk from the same dealer. Likewise, food as a source of infection was eliminated. It was soon learned that there were several cases of typhoid fever in the vicinity, which were up to this time unknown to the State Board of Health and the University Health Service. One case reported as paratyphoid malaria was ascertained in the second house south of this particular boarding house and another patient was convalescing in the second house to the north. The latter case of typhoid fever developed about August 6.

That the preparators of the food consumed at the boarding house concerned were carriers responsible for the infection seemed unlikely, as they had been engaged in similar activities during previous years without mal effects, and had had no illness in the meantime. Since this boarding house was a co-operative club, there was a possibility that any member could be a carrier, as all aided in the serving of food.

However, it was found that all of the students infected had, at one time or another, drank unboiled water from two wells in close proximity to the boarding house, one of the wells being located at the second house north in which was the convalescing typhoid fever patient. "This well is about 25 feet deep, which is not deep enough to get water from the second bearing stratum. The well is located about 20 feet from the house sewer. The owner of the property stated that the sewer was dug up and that a broken joint was found in the sewer about forty feet from the well, and this had been repaired by enclosing in cement. It appears reasonable that other leaks might be found in the sewer."

Water analysis indicated the past and present pollution of this particular well. This condition is more or less true of all the surface wells in Lawrence. Owing to the fact that the city's water supply has been frequently both turbid and feculent, many citizens have preferred to use clear, palatable water from wells, unfortunately assuming that such water must be free from all contamination.

Further investigation by Mr. Welker and his assistants—students in Sanitary Engineering, demonstrated that the well belonging to the second house north was directly contaminated by the sewage from this house in which there was the convalescing typhoid fever patient. A gallon of a saturated solution of flourescein was dosed into the drain of this house. The flourescein was poured into the closet which was flushed several times. Traces of it appeared in the well about ten hours later. Similar tests with sodium chlorid further substantiated the results obtained with flourescein. This data, according to Mr. Welker's conclusions, strengthened the circumstantial evidence against this particular well water as the cause of the epidemic of typhoid fever.

Certainly the work of the department of Sanitary Engineering was of utmost value in tracing the source of the infection, and most emphatically demonstrates the indispensible role it plays in all efficient public health activities.

Next came the activities of the Water Survey. Acting upon the results obtained from the flourescein and sodium chlorid test, the Water and Sewage Laboratory, with the assistance of the class in water analysis, carried on a second test on the well to determine if living bacteria could pass from the sewer to the well. One gallon of suspension of bacillus prodigiosus was placed in the toilet of the house and flushed several times. Regulations were followed respecting flushing so that the suspension would not be carried too rapidly through the sewer. On the following day a second suspension of prodigiosus was likewise added to the toilet. The bacilli were obtained upon agar plates from water removed from the well eight and one-half hours after the first addition of the suspension to the toilet.

Naturally these experiments were incriminating evidences that the convalescing typhoid fever patient had infected the well by means of defective sewerage, and that all of the twenty-two students had been infected by drinking water from this well.

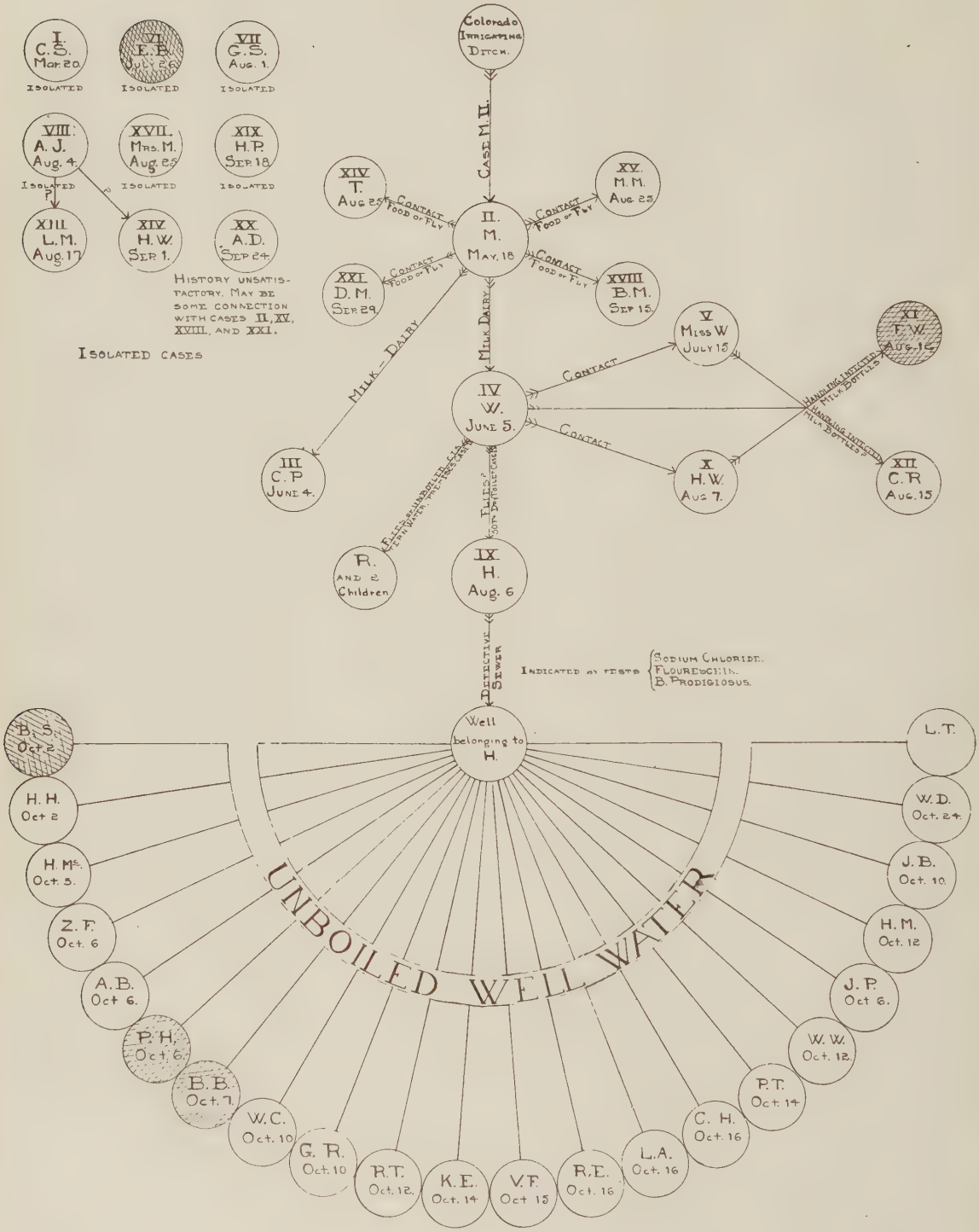
The next problem which presented itself was the source and distribution of typhoid fever in Lawrence. To know the extent of the distribution was indispensable, as the students are so intimately associated with numerous homes in Lawrence. Here again we had the great advantage of expert service. Dr. John J. Sippy, State Epidemiologist, made the epidemiological survey. According to his efficient report, there were in all probability twenty-four cases of typhoid fever in Lawrence dating from March 20, 1916, to October 26, 1916, independent of the twenty-two cases of typhoid fever among students. An additional case is also reported in which the source of infection pointed strongly to the particular well considered in Mr. Welker's report. Dr. Sippy traced a strongly probable line of infection from Case II, who developed the disease about May 18. A graphic illustration of the line of communication is seen in Chart I: (See page 40)

The following are Dr. Sippy's deductions:

FIRST. Case 1 would seem to have been isolated and to bear no relation to those following.

SECOND. Case 2 would seem to have acquired infection outside of city and probably state, and by contact, food or fly infection, to have transmitted infection to Cases 14, 15, 18, 21. Could not be determined that illness mentioned in Case History No. 14 was traceable to Case 2, but might well be suspected.

THIRD. In Cases 3 and 4, the dates of onset coincided with dates necessitated by period of incubation following the collection and re-distribution of milk bottles by



Dairy A, from premises of Case 2. Both 3 and 4 used A's milk, and there seemed no reason to believe bottles underwent any sterilization at dairy. There seems ample room for belief that at least two out of five or six bottles collected at premises of Case 2 might have remained infected, even though entire milk supply was not infected, in which latter case a more wholesale distribution of infection would have occurred.

FOURTH. Case 3 resulted in no further traceable infections.

FIFTH. There seems little room for doubt as to a diagnosis of typhoid fever in Case 4 and undoubtedly infections in Cases 5 and 10 resulted by contact. Further transmission of infection (more probably by flies) resulted in Case 9 and in cases of R and children mentioned in history of Case 9 (although infection in these latter might have originated from drinking unboiled cistern water on premises of Case 4).

SIXTH. Infections in Cases 6 and 9 not directly traceable in the chain. Seemed to be isolated.

SEVENTH. Infection in Case 8 probably acquired outside of city. However, there seems good reason to believe he transmitted infection to Cases 13 and 14. These three cases constitute a separate group.

EIGHTH. Cases 11 and 12 probably owe infection to handling infected milk bottles. It is no fanciful surmise to believe this infection originated in the homes of Cases 4, 5 and 10.

NINTH. In Case 17 diagnosis was never conclusive and at any rate seemed isolated. Case 19 also seemed isolated. History in Case 20 was not satisfactory. Suspected there might be some connection between this case and Cases 2, 14, 15, 18 and 21. Only three or four blocks apart. Children in that neighborhood played together and movements of patient not traceable.

TENTH. Case 9 removed to house with defective sewerage named in Mr. Welker's report in very early convalescent stage and was undoubtedly infectious at that time and during the time sewer clogged. The results of experiments mentioned in Mr. Welker's report would amply justify his conclusions that from this course, then, infection of the well occurred which later resulted in infections of all cases in this block using water from the well.

With the activities and co-operation of these various divisions of the State Board of Health in association with the University, the source of the typhoid fever epidemic in Lawrence was readily ascertained and its control accomplished.

Three students died, one death occurring at the University Hospital and two among the students who went to their homes. Although every effort was made by the Health Service to detain all infected students at the Student Hospital, only eight of the twenty-two remained there, the rest preferring to go to their homes. In the case of each removal the Secretary of the State Board of Health was notified, who in turn communicated with the local health officers of the home towns of the students. By such a procedure a check was placed on further dissemination of the disease throughout the state.

The attention of the students and their guardians or parents was called to the dangers of excessive physical activity in the early stages of the disease, but in spite of this advice, many students persisted in going home and even settling up their affairs before going. This is mentioned in view of the fact that the University has been criticized for permitting students to be up and around and taking these journeys even after the disease was well advance. *We have no quarantine laws for typhoid fever.*

VACCINATION AND TYPHOID FEVER.

Of the twenty-two cases of typhoid fever among the students, three had been previously vaccinated. The records of these three follow:

Case XIII:

	First Inoculation	Second Inoculation	Third Inoculation
Date	Oct. 13, 1914	Nov. 3, 1914	.....
Dose	500,000,000	1,000,000,000	.....

Case XIII failed to receive the third inoculation. The history of this case is fairly well shown in Chart II. No uneventful symptoms were manifested. Stupor, however, was more pronounced here than in some of the other cases.

Case XX:

	First Inoculation	Second Inoculation	Third Inoculation
Date	Oct. 2, 1914	Oct. 13, 1914	Nov. 3, 1914
Dose	500,000,000	1,000,000,000	1,000,000,000

This case went home immediately after he began to develop symptoms and consequently we know little regarding the subsequent events of the disease. We have

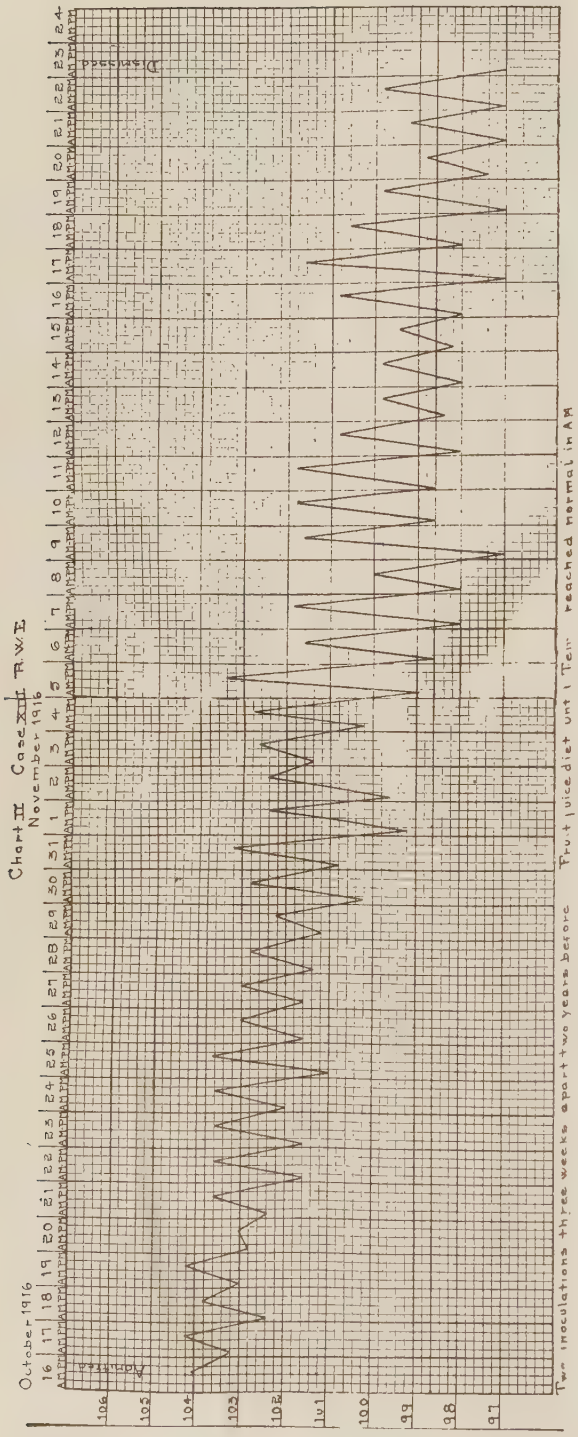


Chart II Case XII R.W.E
November 1916
October 1916
Two inoculations three weeks apart two years before
Fruit juice diet until Temp reached normal in AM

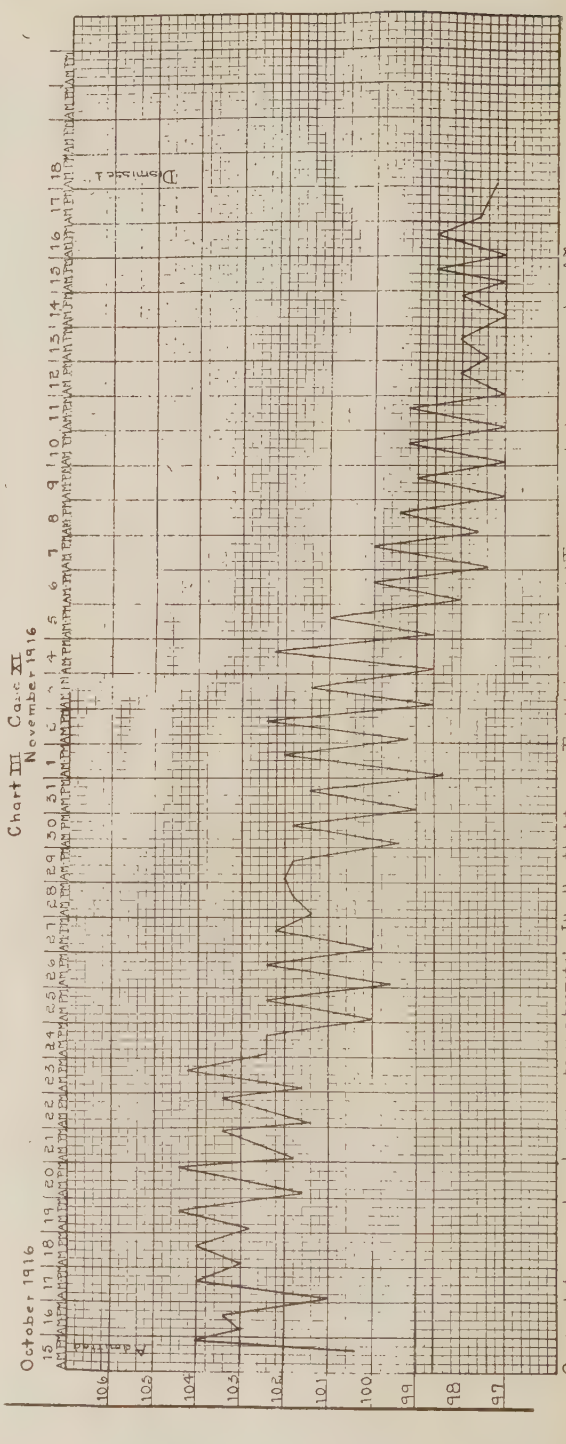


Chart III Case XII
November 1916
October 1916
One inoculation six days before entering hospital Ill all of that time
Fruit juice diet until Temp reached near normal in AM

been informed, however, that it was the average course.

Case XII:

This case had received the full inoculation three years ago, and had received the first dose of a second series of inoculation at the outbreak of the disease. Chart IV shows that the disease was relatively a mild one.

Twelve of the students were vaccinated as soon as the diagnosis of typhoid had been made among those who showed the

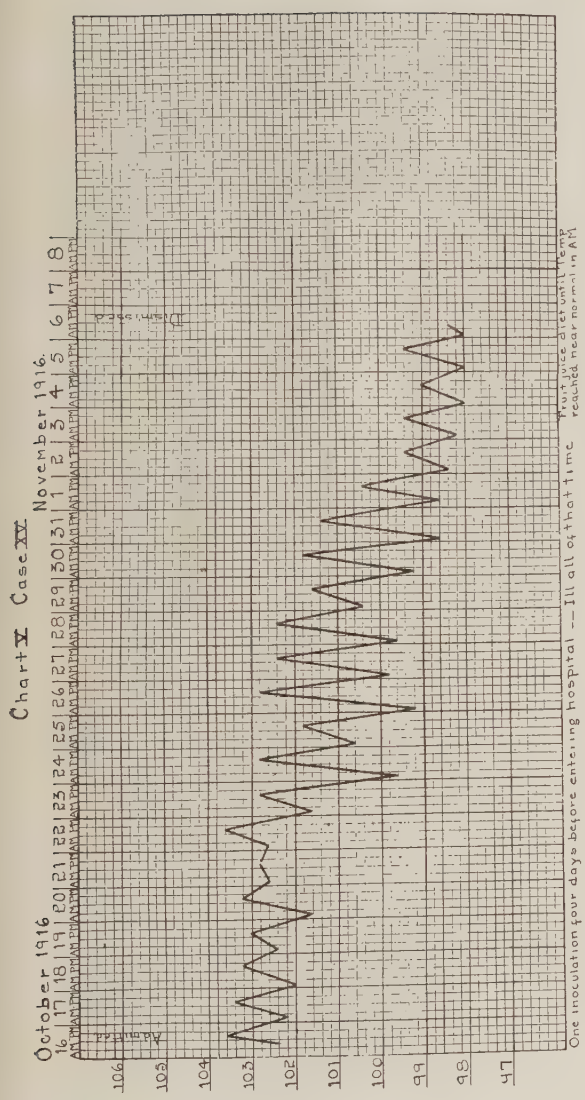
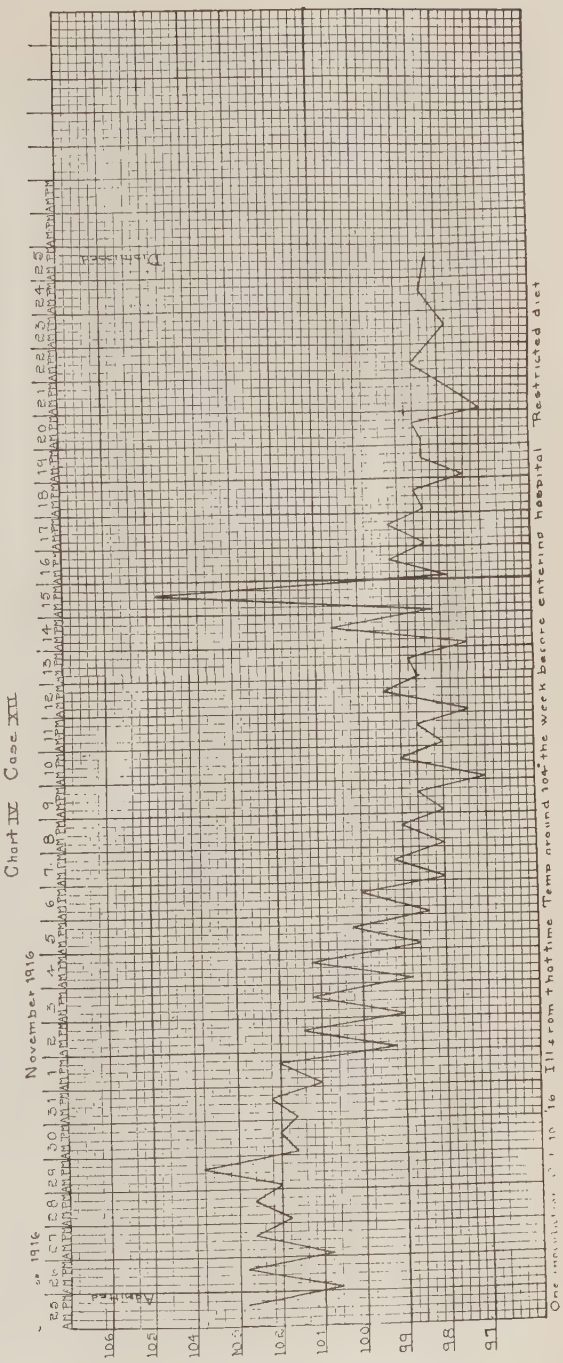


Chart X Case XI
October 1916
November 1916
One inoculation four days before entering hospital — Ill all of that time
Fruit juice diet until temp reached near normal in AM



symptoms early. It may be generally accepted that in these twelve infection had shortly preceded vaccination. Their records are as follows: Unless indicated, no previous inoculations had been made.

Case VI:

	First Inoculation	Second Inoculation	Third Inoculation
Date	Sept. 29, 1916	Oct. 6, 1916	.....
Dose	500,000,000	1,000,000,000	.....

The date of onset of this case is recorded as October 6. This young man preferred to go home, which was some distance from Lawrence. Despite the fact that he was urged time and again to go to bed and repeatedly warned of the serious danger of being up and around, he insisted on being active for several days settling up his affairs even when he had a

Chart VI. Case XVII.

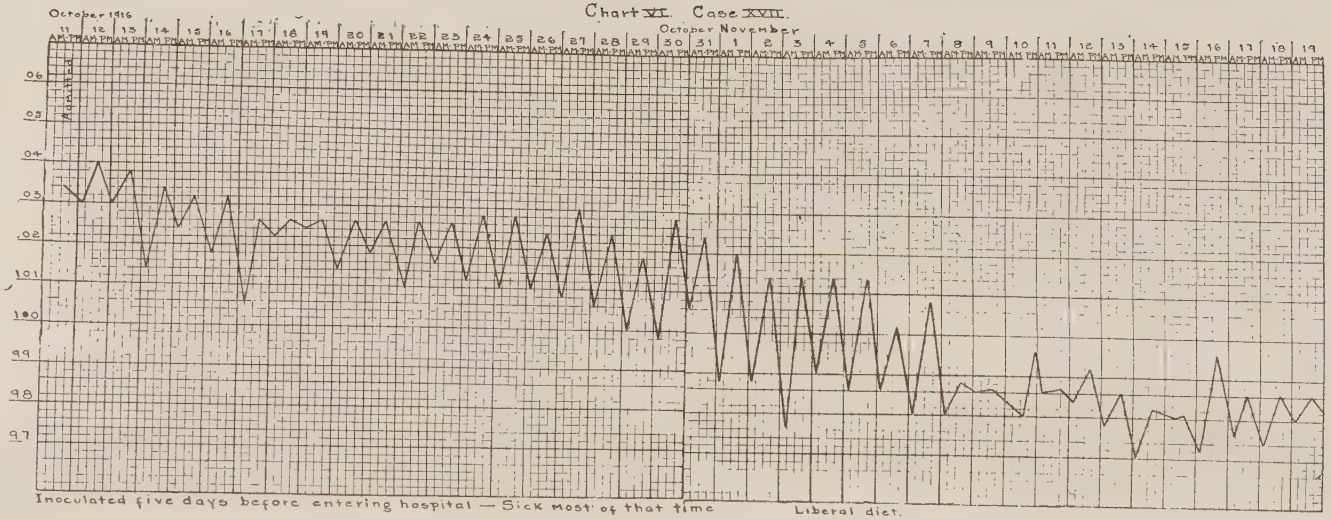
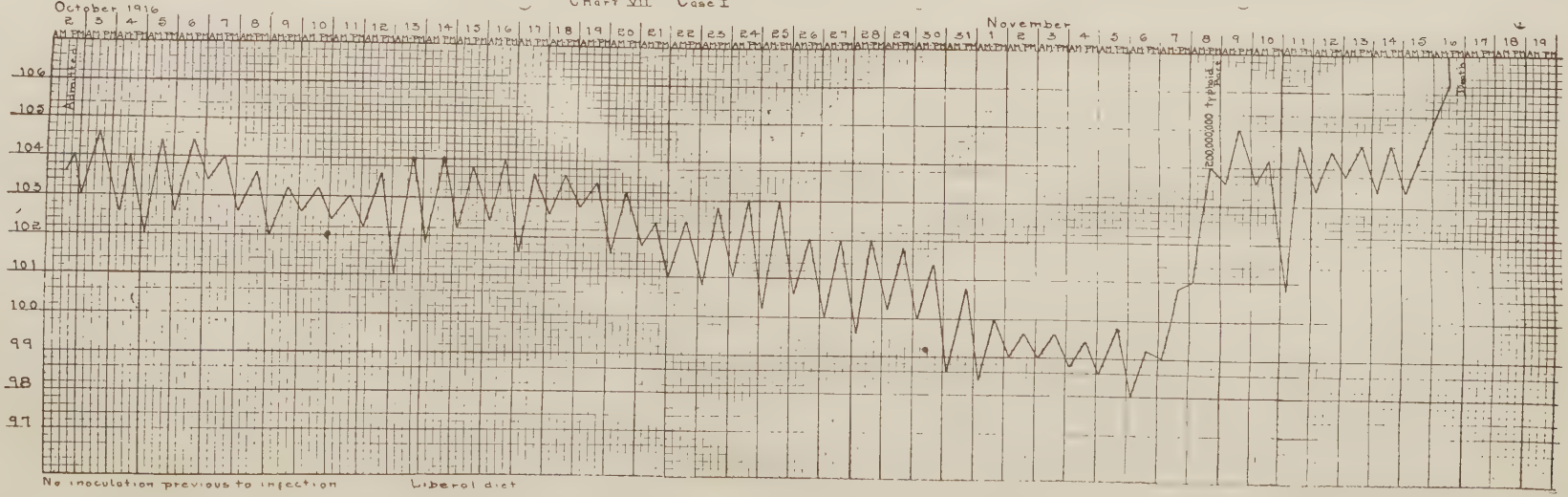
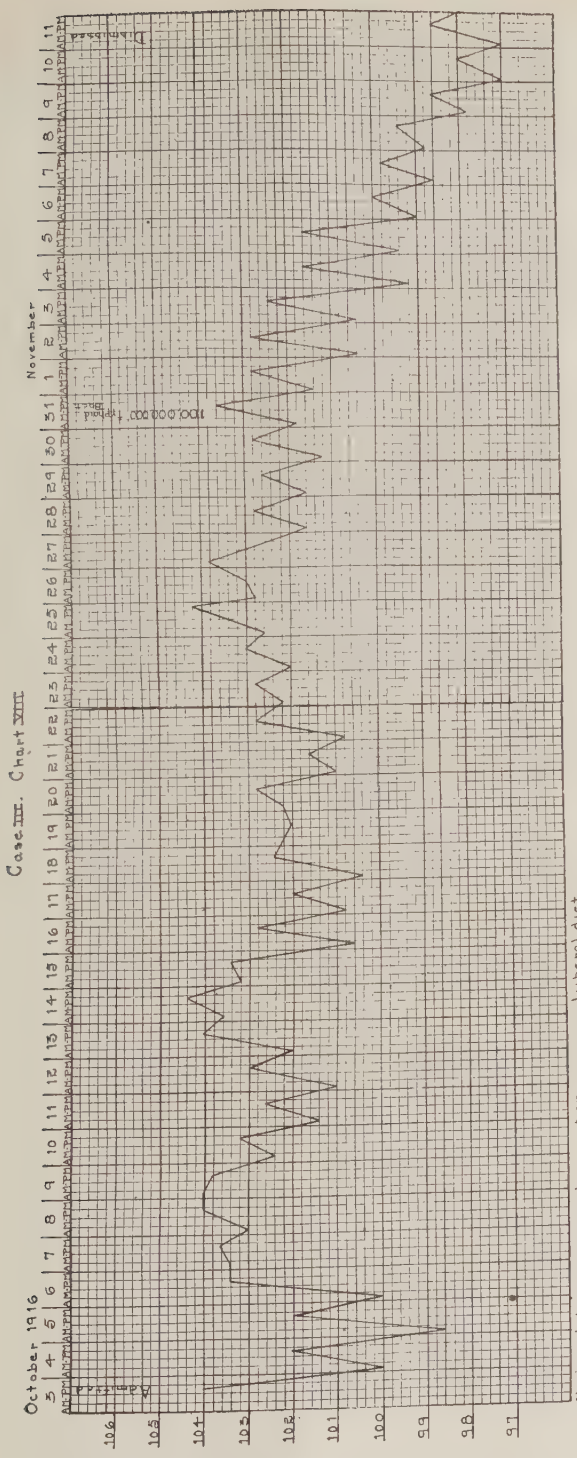
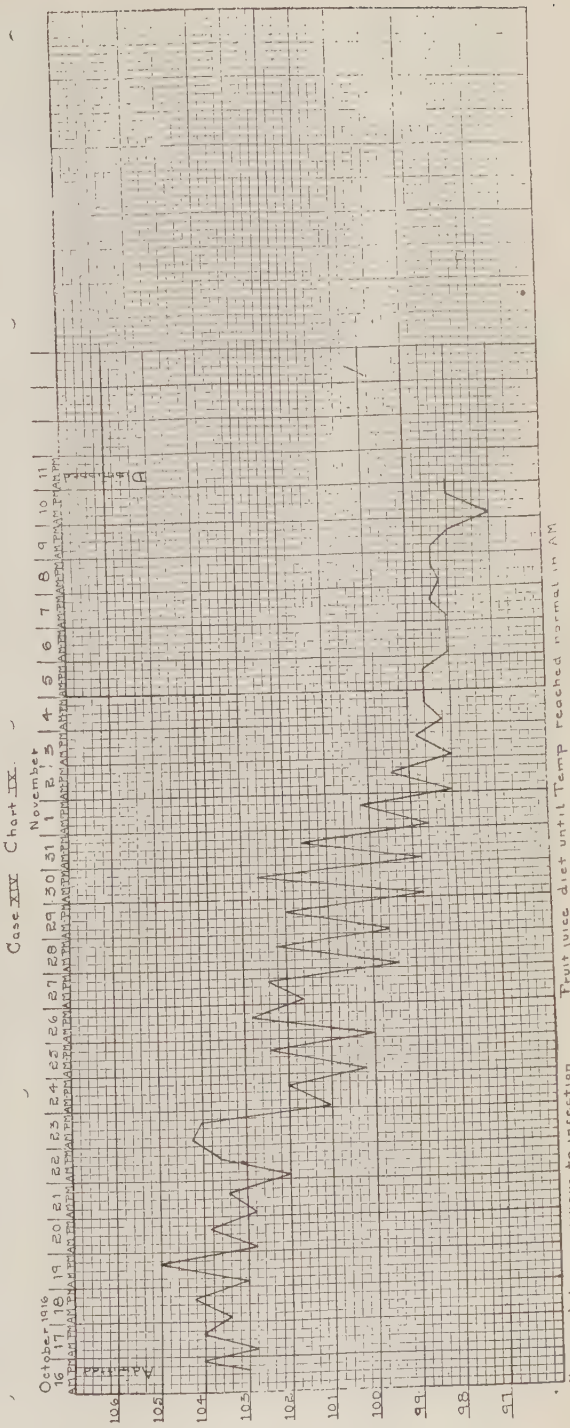


Chart VII Case I






Case XIV Chart IX.
October 1916
November
No inoculation previous to infection
Fruit juice diet until Temp reached normal in AM

temperature ranging between 102 and 103 degrees. He died from perforation. We have no record of his illness subsequent to his departure from Lawrence.

Case VII:

	First Inoculation	Second Inoculation	Third Inoculation
Date	Oct. 6, 1916	.....	.....
Dose	500,000,000	.....	.....

This case departed from Lawrence immediately after the onset of the disease,

which was October 7. We do not possess a record of the subsequent events. Death was the termination.

The following six cases received only one inoculation and then left Lawrence for their various homes. All showed indispositions and fearing the development of typhoid fever, preferred to be at their homes.

		Date of Inoculation	Dose	Reported Date of Onset of Fever
Case	VIII	Oct. 9, 1916	500,000,000	Oct. 10, 1916
Case	IX	Oct. 6, 1916	500,000,000	Oct. 10, 1916
Case	XVI	Oct. 11, 1916	500,000,000	Oct. 14, 1916
Case	XVIII	Oct. 6, 1916	500,000,000	Oct. 6, 1916
Case	XIX	Oct. 6, 1916	500,000,000	Oct. 12, 1916
Case	XXI	Oct. 6, 1916	500,000,000	Oct. 24, 1916

No medical histories were obtained for these cases. That the date of onset in some of these cases was simply an inoculation reaction is suggestive. Attempts were made to obtain records of these cases. Replies to our requests may be generally summarized as follows: "He has a typical case of typhoid fever." As accurately as we can determine these cases were not so severe. No deaths resulted in this group.

The following four cases received one inoculation shortly after infection. They remained at the Students' Hospital and Dispensary, and consequently the course of the disease in each case was followed in detail. Charts III, IV, V, and VI show the temperature records. The disease was relatively mild in each case. It will be recalled that Case XII, Chart IV, had received the full series of three inoculations three years previously. Intestinal hemorrhage and a sharp recrudescence characterized this case.

		Date of Inoculation	Dose	Admittance to Hospital
Case	XI	Oct. 9, 1916	500,000,000	Oct. 16, 1916
Case	XII	Oct. 10, 1916	500,000,000	Oct. 15, 1916
Case	XV	Oct. 12, 1916	500,000,000	Oct. 16, 1916
Case	XVII	Oct. 6, 1916	500,000,000	Oct. 14, 1916

It may be interesting to compare Charts II, III, IV, V and VI with VII, VIII and IX. The students in the latter group were not inoculated at the onset of the disease, nor had they had any previous vaccination. Case I, Chart VII, and Case III, Chart VIII, were the severest of the eight who remained at the Students' Hospital and Dispensary. They were the earliest to show the symptoms. Typhoid bacilli were isolated from the blood shortly after their entrance into the hospital.

Case I was charcterized by a profound stupor which existed practically throughout the course of the disease. Only at intervals was any approach at normal rationality observed. On Nov. 8, 200,000,000 typhoid bacilli (vaccine) were inoculated subcutaneously. The subsequent events are seen in the chart. Death occurred Nov. 16th, about six weeks after the onset.

Case III, Chart VIII was severe. Stupor, intestinal hemorrhage, extreme emaciation characterized the events of the disease. Many times it appeared as if death were imminent. He remained in the hospital for a period of eight weeks. On October 31st, one month after the onset of the disease 100,000,000 typhoid bacteria (vaccine) were inoculated subcutaneously. From this point the record shows a decrease in the temperature until normal was reached. His convalesence was uneventful.

Case XIV, Chart VIII is the third case which had not been previously vaccinated. It developed relatively late, Octobed 16th, and the temperature reached normal after three weeks. The infection was mild throughout.

It is not my purpose to enter into a discussion of the treatment afforded these cases. The usual management and medicinal treatment for symptoms were given. It may be well to add here that Case XIII, Chart II; Case XI, Chart III; Case XV, Chart V; and Case XIV, Chart VIII were allowed no food whatsoever save fruit juices. It is the theory of the physician who had these cases in charge that any other diet only serves as media for the growth of the bacteria in the intestinal tract. The diet is noted on each chart.

Of course, from so few cases it is impossible to derive any conclusions. The records however suggest that:

(1) One dose appears to mitigate the

course of the disease. Our records show that such patients were admitted to the hospital with temperatures ranging between 103 degrees and 104 degrees as a rule, and that there was generally a progressive decrease in temperature without severity of symptoms until normal was reached. See Charts II, III, IV, V and VI. Exceptions to this statement are seen in Cases VI and VII, who went home. Other factors may be responsible for the severity of the disease in these cases.

(2) Case XII, Chart IV, contracted typhoid fever three years after complete inoculation and a first dose of a second series of inoculation which was given as soon as typhoid fever had been diagnosed among students. The case was mild. A recrudescence and hemorrhage were the only alarming events. Case XIII had a rather severe infection notwithstanding that he had received two inoculations (500,000,000 and 1,000,000,000) at an interval of three weeks, three years previously. Case XX recieved the full series of inoculations three years previous to the infection. He is reported as having a mild attack of typhoid fever. He was not under our observations.

(3) Our limited observations show that in case of ingestion of virulent typhoid bacilli in abundance, previous complete inoculation within a period of three years does not prevent the disease from developing, although the course is relatively mild.

The apparently relative mildness of typhoid fever in the inoculated of our series agrees with numerous other observations. Benard and Parof (Annals de Medicine, Paris, October, 1915, II, 5, p. 443) observed the relative mildness of the disease in previously vaccinated soldiers. V. Heckler and Hirsch state that in their experience those inoculated while typhoid was in the incubation period were subject to severer manifestations of the disease. Our observations do not agree with this. Of course, ours were limited to so few and then only after the first inoculation. The relative mildness of the disease and its less frequency in the inoculated in the German army are commented upon in an editorial of Journal of the American Medical Association for January 1, 1916. Similar observations were made by Yagisawa for the Japanese Army.

To Misses Haight, Fleeson and Noble of the Hospital Staff I am indebted for the records of patients and other assistance.

CORRECTIVE MEASURES.

Of greatest concern, naturally, to the people of Kansas is what provisions will be made by the University and the City of Lawrence against future outbreaks of preventable, communicable disease. "If typhoid fever or any other serious infection is probable, due to deficient sanitation, my son and daughter must go elsewhere for college training," no doubt is a frequent and serious comment among those concerned.

Lawrence is a delightful city. For beauty and pride it has few rivals. Like the majority of localities, however, sanitation has been a minor consideration. No particular fault of Lawrence, for you may in the vast majority of instances in this matter point the finger of opprobiousness to your own town.

As soon as the epidemiology of the disease was determined, the University Health Service arranged a meeting with the Merchants' Club—now Chamber of Commerce —with a view of acquainting the leading citizens of Lawrence with the sanitary conditions of the city. Dr. Crumbine and Dr. Sippy of the State Board of Health, addressed the meeting, calling particular attention to the defects in the city's sanitation. "Early improvement of the city water supply. More stringent sanitary control and supervision, especially as regards sewage and garbage disposal. Adequate machinery for constant inspection and control of milk supply. The appointment of a full time health officer under whose jurisdiction all public health work may be correllated. These are a summary of the recommendations made.

A committee was appointed by the Chamber for the purpose of considering

and recommending organization and methods of improving sanitation.

FULL TIME TRAINED HEALTH OFFICER.

A trained full time Health Officer is the fundamental need in effective city sanitation. All else will follow when the right man is at the helm. Today there is a health officer for Douglas County who devotes only a fraction of his time to this large area and relatively dense population. He is only meagerly paid for his service. No small wonder then that serious outbreaks of communicable diseases occur. Under such paltry attempts to regulate health conditions other and even more calamitous epidemics are bound to occur.

Lawrence has an unusual opportunity to organize and administer an ideal health department. Essentially, the health of the city, the county, the university and the public schools is one. Now that there are no existing health organizations in either the city or the public schools, would it not be the ideal arrangement for the city, county, public schools and the University to co-operate in the organization of one efficient health department to cover all these activities? All are so intimately interwoven that what are the problems of one are the problems of the others. Again, with one central organization, there is no duplication or friction as is the case where independent health organizations are maintained.

The following plan of organization has been submitted. Chancellor Strong will lend his influence in bringing about such an organization. The four activities would begin by appropriations as follows:

1. For Salaries: Health officer and nurse:

	1917	1918	1919	1920
City	$800	$900	$1,000	$1,100
County	800	900	1,000	1,100
Pub. Schools..	800	900	1,000	1,100
University ...	800	900	1,000	1,100
	$3,200	$3,600	$4,000	$4,400

	1917	1918	1919	1920
Health officer.	$2,400	$2,700	$3,000	$3,400
Nurse or ass't.	800	900	1,000	1,000

2. For technician, laboratory, and equipment, an additional appropriation of:

	1917	1918	1919	1920
City	$500	$600	$700	$800
County	500	600	700	800
Pub. Schools .	500	600	700	800
	$1,500	$1,800	$2,100	$2,400

As the University would not be involved in the use of the laboratory, it should be exempt from this appropriation.

3. The county to offer appropriate rooms for officers and laboratory in the court house. No place would be more accessible than this.

4. The health officer would devote not more than ten hours each week to teaching at the University. The remainder of his time would be devoted to the other activities. The various classes in hygiene and sanitary engineering at the University may use the city and county for practical training.

5. Health officer must be trained in sanitation. This training must be the equivalent of that demanded for the degree of Doctor of Public Health, Master of Science in Public Health, Sanitary Engineer, Certificate of Public Health, in various universities. He shall also have a degree in medicine.

6. He shall not engage in the practice of medicine for fees. He must devote all his time to public health work.

7. He shall be appointed conjointly by the Board of Administration, upon recommendation of the Chancellor; Mayor of Lawrence; Chairman of the County Commissioners; Chairman of School Board. It would be well to include the Secretary of the State Board of Health.

8. Each activity must pledge itself to pass conjointly suitable sanitary regulations.

To discuss the advantages of such a co-operative health organization is unnecessary. Any one of these activities would receive a service that would practically cost four times as much as it contributes. Let us take Lawrence for example. In

1918, it would expend $1,500 for its health department but would receive the services of a department costing $5,400. But even to duplicate this department elsewhere would cost let us say $10,000 or even more for the classes in hygiene and sanitary engineering under the direction of various professors will contribute as efficient a service as that obtained from a number of paid assistants. Again, the city, county and schools will have the advice and aid of trained experts connected with the University. Further, the health department will be removed from politics.

The educational phase of health activities is of fundamental importance. In every school practically throughout all grades, classes in public and personal hygiene should be conducted. By the close co-operation between the University and the schools in public health matters, as is now done in the case of the school superintendent, instruction in hygiene can be effectively given. This instruction in turn will react on the community and the state.

Let us then make a beginning in a manner a suggested. With an efficient full time health officer and sympathetic city, county and school officials, we have no apprehension whatsoever for the future welfare of this department of health. Assuredly this is an unusual opportunity. Lawrence can be made the model health city of the State if not of the Nation.

Would not similar co-operation on the part of all activities concerned with health be the ideal arrangement in all cities of Kansas?

———R———

President's Address.

Annual Meeting Shawnee County Medical Society.

T. C. BIDDLE, M.D., Topeka, Kansas.

The annual meetings of our Society are, by custom, occasions of gastronomic weight and intellectual nebulosity. My inclination is not to depart from this time honored policy, but to avail myself of the opportunity to direct your attention to some of the achievements of medical men in fields of activity outside the confines of the profession. It is true that the general inclination of medical men has been to dedicate themselves wholly to the duties of their chosen profession. This general devotion and singleness of purpose of the medical world has contributed very largely to the advancement of civilization. The lives of all men, however, are largely influenced by circumstances surrounding them. We are creatures of environment. "There is a destiny which shapes men's ends, rough hew it as we may." We find the history of the world, therefore, furnishing the names of many physicians distinguished in fields foreign to the profession.

Examination of almost any sphere of human endeavor soon reveals names of medical men and many others whose professional identity has been overshadowed by their greater renown in other fields of activity. We do not remember Lincoln as the successful lawyer, but as a great statesman; nor Washington as the competent man of affairs, but instead he is remembered as the great military hero of the Revolution. Likewise we think of Hippocrates as the great philosopher of his time, rather than the leader of the medical profession of his age. We find the names of physicians connected with all phases of human activity. We find them distinguished in literature, in art, exploration and discovery, statecraft, finance and war.

In literature many medical men have shone as bright, particular stars. When reading "The Vicar of Wakefield," "The Traveller," or "She Stoops to Conquer," we are apt to forget that Goldsmith, whose name will live to the end of time, was a physician. We forget that the cruel water that covered poor Shelley, left behind no dearer memory than that he was a student of medicine. We read Oliver Wendell Holmes, and are proud to remember he was our professional brother. He, who did so much in life's short span to lighten the burden of life and direct mankind through many dismal places, converting paths of gloom into ways of brightness and sunshine. The "Last Leaf" will keep

green the grave of Doctor Holmes forever. When you read "Hugh Wynn," don't forget the distinguished professional career of Dr. Weir Mitchell, nor the pleasure we find in the fiction of Dr. Wm. A. Hammond. Their literary work will live long after their medical careers have been forgotten.

Our medical literature, all written by members of the profession, is remarkable for its wonderful clearness and beauty of expression. An eminent clergyman, of our city, recently remarked, in my presence, that he enjoyed reading medical books; not that he understood the subject, but because he was always attracted by the clearness of diction and correctness of expression he found in the text. Among the world's great explorers the names of medical men are found. Dr. David Livingston, spending his life in the jungles of Africa, devoting himself to the cause of humanity, is a conspicuous example. Doctor Greely, struggling in the interest of science among limitless ice fields of the Arctic Sea, was an exhibition of the deeds of a hero; and Dr. Cook, of our own time, must, at least, be credited with courage and enterprise.

In the field of American statesmanship are found the names of many medical men that shine with special brightness. In the struggle for American liberty, physicians played an important and honorable part. Throughout those trying times they were most loyal and active in freedom's cause. The first illustrious martyr of the Revolution was a doctor. Joseph Warren, a prominent Boston physician, was the Ellsworth of the Revolution. He lost his life on Bunker Hill while fighting like a plumed knight. He had, in recognition of his conspicuous ability and patriotic activity, been commissioned a Major General in the patriot army. He joined the forces in the field that glorious day; and, declining the command tendered him by General Prescott, took a musket instead and fought in the ranks until he fell; and in falling dedicated the medical profession to the cause of patriotism forever.

General Hugh Mercer, whom Washington so much admired and trusted, began his distinguished military career as an assistant surgeon in the British army. Following a service in America, in the Braddock campaign, he resigned and remained in America. He was greatly interested in the cause of the Revolution, and for meritorious conduct was rapidly promoted to the rank of Major General in the Continental Army. His fall at the battle of Princeton was the cloud that shadowed that important victory. He died in the arms of the grand patriot statesman, Dr. Benjamin Rush. The career of Dr. Mercer instinctively reminds us of the present Chief of Staff of the U. S. Army, Major General Dr. Leonard Wood. He, too, having begun his military service as an assistant surgeon.

The medical profession was largely represented in the statesmanship of the Revolutionary period. The names of several physicians appear on the rolls of the Continental Congress. Of the signers of the Declaration of Independence, four were physicians. When General Sullivan resigned his place in the congress to accept a commission in the patriot army, Dr. Josiah Bartlett, an eminent New Hampshire physician, was selected to fill the vacancy. History relates that when the final vote on the Declaration was taken, the roll call began with the northernmost colony, New Hampshire. In this manner the name of Dr. Bartlett was called first, and thus it came about that a physician cast the first vote for American independence. By repeated elections, Dr. Bartlett remained a faithful and distinguished member of Congress throughout the long and trying war for freedom. Dr. Mathew Thornton was another of the three signers from New Hampshire. He was a physician of more than common repute, noted for sagacity and honor. It is stated, his grave bears the epitaph, "An Honest Man."

One of the members of the famous congress from Pennsylvania was our patron saint, Benjamin Rush. Few men wielded greater influence in the struggle for inde-

pendence than this illustrious statesman-doctor. He was richly endowed with personal gifts and enjoyed the full confidence of the people, and remarkable popularity. At all times he was a patriot ready, if required, to lay his life on his country's altar. He, too, was perhaps the leading American medical man of his time. Dr. Lyman Hall of Georgia was another signer. Georgia was slow in engaging in the Revolutionary cause. A strong tory influence held the colony back; and she was bound to England by important commercial and social ties. It was largely the result of personal efforts of Dr. Hall that she was at last induced to join the sister colonies in the war for liberty.

Our profession has, at least, pardonable pride in another of the Revolution's great men—perhaps the most talented of them all—soldier, political economist, gifted genius, Alexander Hamilton. At the beginning of the war he was a medical student in King's College. You know his history; how his talent for finance and political economy paid our national obligations and placed our country in the first rank of the commercial nations of the world.

Other medical men have been conspicuous in the financial world. A noted example of this class of able men was the late Dr. Norvin Green, who developed the Western Union Telegraph System. In the field of modern politics appear the names of many physicians. Ex-Governor Dockery of Missouri was a successful practitioner before he began his long and honorable career in Congress. Senator Gallinger of New Hampshire, the Dean of the U. S. Senate, is a physician.

The profession has again been honored in the recent political contest, by the election of Dr. Julius France of Maryland to the U. S. Senate. In our own Kansas, throughout her history, the medical profession has shown commendable interest in public affairs. You are all familiar with the career of our first governor, Dr. Chas. Robinson. He was a tower of strength and courage in the dark and bloody days of our early struggle for freedom. Our most distinguished soldier of the Civil War was an Anderson County physician, Major General James G. Blunt.

Thus, throughout the world's history, medical men have shown interest in the affairs of humanity and better citizenship; and, thus may it ever be.

———R———

A Communication.

Editor Kansas Medical Society Journal:

The paper of Dr. T. A. Jones on the "Process of Diagnosis," in the January number of your Journal, and the statement, "Statistics from authoritive sources indicate that regular medical men make a correct diagnosis in only about half the cases," reminds one of a saying of Josh Billings, that "It is better not to know so many things than to know so many things that ain't so." Dr. Jones has the first prerequisite of a good physician in that he is making a stab at the truth. I am not sure but what the last word of his paper, "logic," should read common sense. Logic is correct reasoning. A man may reason correctly from wrong premises. However, I am sure the Doctor took it for granted that no one should practice medicine unless he had common sense.

The Doctor has covered the ground so far as purposed by his paper and so long as man is in his formative, evolutionary stage, medical men will make mistakes. Taking it for granted that a large per cent of diagnoses are mistaken ones, what is the remedy to lessen the suffering and deaths which will result therefrom? The first responsibility rests on the medical colleges and the principal remedial agency is within their power to apply.

The young man (man is used in its generic sense) who begins the study of medicine, thinks, as the name implies, that he must learn to give medicine. If his mind is not disabused of this idea during his student days, he is confirmed in the thought and will put it in practice after he graduates.

His mind must be disabused of the thought so far as possible and still he will

be forced to give too much medicine in practice. He should be taught that to give a patient a toxic agent is a dernier resort. It should be etched on the tablet of his memory, that resort should be had to suggestive treatment; hygenic, dietetic, domestic expectant treatment; a placebo, massage, psycheism and other methods, unless it is a clear-cut case and he knows the antidote. In such cases for example as diphtheria and malaria.

The student should be taught and his mind firmly impressed with a knowledge of all possible preventive measures and comforting and non-toxic remedial agents and how to use them. He should then be taught the danger of potent drugs. Their danger to life when there is nothing to antidote or destroy, or a wrong diagnosis. The student's mind should be burdened with the thought of what potent medicine he ought *not* to give instead of the multiplicity of agents he can, may or must give. If such a plan was pursued in our medical colleges today the next generation of physicians would do less harm than is being done in this generation, and more good. There would be fewer so-called Christian Scientists and other medical ismatics. The Prodigal believes in the potency of drugs and that the number of drugs whose helpful and antidotal effects are positively known and should be used, are numbered by the demonstrated organisms causing disease.

The practitioner of medicine knows this better probably than the Prodigal. But is he practicing as partly outlined here? If not, why not? Maybe he is handicapped like the Prodigal was forty years ago by the dignity of the profession not permitting it. Dignity is all right in its place, but dignity becomes hurtful when it interferes with a physician's success in relieving suffering, saving human life and doing right by his fellow man.

THE PRODIGAL.

2273 West Twentieth Street, Los Angeles, California.

An Ophthalmological Service has been added to the other departments of Bellevue Hospital, New York. It is located in the new surgical pavilion but is entirely distinct from the rest of the hospital, having its own operating, examining and dressing rooms, a staff of attending surgeons, special internes and nurses; its capacity for the present will be fifty beds. The service is in charge of Dr. Charles H. May, attending surgeon, who will have as his principal assistants Drs. Julius Wolff and John M. Wheeler.

———R———

The Association of Military Surgeons of the United States announces the results in the Henry S. Wellcome Prize Competition. Captain Mahlon Ashford, M. C., U. S. A., who wrote on the subject, "The most practical plan for the organization, training and utilization of the medical officers of the Medical Reserve Corps of the United States Army and Navy, and of the Medical officers of the Officers' Reserve Corps of the United States Army in peace and war," was awarded a gold medal and three hundred dollars. First Lieut. Henry C. Coe, M. R. C., of New York City, who received the honorable mention for this prize, was awarded a life membership in the association. A silver medal and two hundred dollars was awarded to Assistant Surgeon General W. C. Rucker, U. S. P. H. S., whose essay was entitled, "The influence of the European War on the transmission of the infections of disease, with special reference to its effect upon disease conditions of the United States." Past Assistant Surgeon J. R. Hurley, U. S. P. H. S., received honorable mention for this prize and a life membership in the association. These prizes, which were given by Mr. Henry S. Wellcome, an American living in London, are annually competed for by officers of the army, navy, public health service, the national guard and the officers' reserve corps of both the army and navy. The essays of the successful contestants will be published at an early date in The Military Surgeon.

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

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Pauper Practice.

THE ALLEN COUNTY SYSTEM.

The Allen County Medical Society is trying out a new and rather unique method of handling the county pauper practice. The president of the society took the contract for doing the county work in the Iola district for $600. He distributes the work among the other physicians in the district in an equitable manner. At the end of the year the salary will be divided according to the work each has done. Cards stating that the holder is entitled to free medical attention for one week are issued to those in need, signed by the president of the society as health officer. The cards are endorsed by the physician called to the case with the dates and amount and character of the service rendered. If the case demands service for more than a week a new card must be procured. A schedule of credits for various services has been prepared and this is used in determining how the calls shall be distributed. When a call comes in to the president it is given to the physician who then has the least number of points of credit. If the physician makes one, two or three calls upon one patient he is given two points of credit; if he makes four, five or six calls, he gets four points, but he may receive only four points in one week from one case. From one to three office calls are reckoned as one point, with a limit of two points in one week. Obstetrical attendance calls for ten points, but surgical operations bring a credit of only five points. It is the business of the secretary to keep a record of the points made by each physician and report each month to the president, who then distributes the calls as stated. Evidently a considerable amount of detail work devolves upon the officers of the society.

The system has not been in operation long enough to determine its efficiency or practicability, but according to our latest information it was working nicely and harmoniously. There are 12,000 inhabitants in the Iola district and there are twelve physicians, who will receive about fifty dollars each for his year's work, if the work is distributed evenly. According to the estimate of the president, the amount received from the county should pay about 50 per cent of the regular fees for the services rendered. While the system adopted by the Allen County Society is no doubt very satisfactory for the fair distribution of the work, we are at a loss to understand why physicians feel that it is incumbent upon them to give their services to the county for 50 per cent less than they are willing to give them to an individual. It is not a matter of philanthropy. The county assumes the responsibility for the medical care of its charges. The cost is borne by the tax payers and in this way the burden is equitably distributed among all the people. The doctors pay the regular rate of taxation upon whatever property they may have accumulated and, therefore, bear their fair proportion of the burden of caring for the poor. They are giving nothing to the poor when they give their services to the county for 50 per cent of their value, they are giving to the tax payers. They are diminishing by 50 per cent a part of the burden which the taxable property of the county should carry.

It must always be borne in mind that every physician gives a considerable

amount of free medical service to many deserving poor who are not county charges, and this is done readily and willingly—in fact, the physicians of any populous county give more free medical service than does the county—that is a part of his moral obligation. When the county, however, assumes the responsibility of caring for certain of its sick poor, the moral obligation and the philanthropic motive are eliminated, as far as the physician is concerned, and his relation to the county work is purely a business one, and on the same basis as the merchant or the bridge builder. He should, like these other men, never receive *less* than his services or his goods are worth, at any rate.

———R———

Mr. Ed. T. Hackney.

The president of the State Board of Administration of Educational Institutions, Mr. Ed. T. Hackney, has shown unusual ability in his earnest and untiring efforts to grasp and administer the numerous, varied, and intricate problems concerned with state educational institutions. That he is thoroughly familiar with the needs and aims of medical education is apparent from the following excerpts, and we feel that he has sound perspectives of the other professional schools, colleges, and graduate schools as well. Now that his term of office soon expires, the medical profession, along with many other state activities, will look forward to his reappointment. Assuredly no other man in Kansas is better qualified to carry on this work.

In an article which appeared recently in The Journal of the Kansas Medical Society entitled "Future Prospects of Medical Education in Kansas," Mr. Hackney said in part:

"In the same way should the University Medical School be an experiment station and a research laboratory in the problems of human health. It is a great laboratory and should be even a greater laboratory for the young men of Kansas who are interested in preventing and curing the human ills so expensive to Kansas. It should be and must be so supported that its great laboratories and libraries will be a constant magnet to draw not only the problems that constantly confront the practitioners of the state, but will draw each of those practitioners to it for longer or shorter stays, at least once each year. It must not only be a school for the training of young men to be doctors, but must constantly assist those who are already in the profession to do even better and nobler work than they are now doing. Its pathologists and other experts must ever be ready to render special services along their particular lines. Its laboratories must ever be a place for practitioners to come to study out special problems for the benefit of the health of the state. It must more and more be the publicity agent, the health information bureau to the layman as well as the practitioner.

"The state is just beginning to realize the great loss it is sustaining because of the lack of information as to human ills and their causes. Physicians are doing a splendid and noble work in this line. They are doing their best to prevent sickness. No profession has a nobler, more self-sacrificing spirit than the medical profession. The state as a whole loses many millions of dollars every year through preventable diseases. It can well afford to spend a few thousand in building up a great plant at Kansas City, Kansas, the radiating point for all Kansas, where the great work of disease prevention and cure may be increased."

The following letter was addressed to the presidents of the various state universities and others directly concerned in medical education:

Topeka, May 10, 1916.

My Dear Sir.—This is a time for preparation and conservation. The United States has long appreciated this in animal and plant life and has established and assisted in maintaining experiment or research stations for their conservation. Their value was easily measured in dollars. The value of human health has not been so easily measured, but the people are now coming to realize that they have been indifferent and wasteful of their most valuable asset—human health and life.

Just what a human life is worth in dollars and cents depends upon many factors. It is certainly a rather sordid thing to consider human values from a financial basis. However, economists have attempted—although unsatisfactorily—to ascertain the money equivalent of human life. Fisher computes the eco-

nomic loss annually from deaths in the United States to be $1,070,000,000. This is based upon an estimate of $1,700 for each life. The economic loss to this country as a result of diseases which render the victims economic burdens must reach several billion dollars.

The enormous loss of life in the United States with all its tragedy and economic loss is due in a large measure to conditions that are preventive. For example, according to the figures of Beard, the loss of life each year in the United States from communicable diseases is more than 500,000, while over 5,000,000 people, during this period, are incapacitated as a result of infectious diseases alone. Of these communicable diseases typhoid fever is perhaps responsible for 18,000 deaths, while approximately 180,000 suffer annually from the disease. Of those who recover from the typhoid itself 8,000 in all probability die as a result of the disease. Tuberculosis caused the death of 147,600 in 1913—our last available census. Pneumonia claims 132,400 victims. The annual death rate from other specific infectious diseases is: scarlet fever, 9,000; measles, 12,000; whooping cough, 10,000; diphtheria, 18,000. These are the deaths from these diseases. Those who suffer from them number several hundred thousand annually, and it is impossible to estimate how many of these are more or less permanently incapacitated as a result. These diseases which the laity erroneously regard as a matter of course in the experience of childhood leave a fertile soil for the development of tuberculosis, deafness, cardiovascular disease, renal diseases, and what not.

Then there is the alarming condition of the venereal diseases. It appears at times that this nation is doomed as a consequence of these broadly disseminated secret infectious diseases. In all probability 1,500,000 syphilitics are scattered over the United States, while gonorrhea, which is equally as destructive and imposes upon society even a greater economic loss, is in all likelihood more widely spread.

Most of these infectious diseases are preventive. Our government has succeeded in practically eradicating plague, cholera, and yellow fever. Why not begin a nation-wide campaign to eliminate these other infectious diseases?

In addition to this amazing loss of life due to infectious diseases numerous fatalities occur as a result of degenerative diseases. More than 300,000 die annually from diseases of the heart, kidney, and blood vessels. Then there is the grave question of cancer, which claims 80,000 victims each year. The degenerative diseases as well as the cancer are in a certain measure preventive or curable in character if the condition is recognized early.

There is no reason why the national government should not establish a health experiment and research station or laboratory in connection with each state university medical school and appropriate, say $25,000 or more each year to it, making it a cooperative agency of the United States Public Health Service. Every state has health problems that are more or less local in character which can be dealt with best through the medium of a hygienic laboratory connected with the state university and cooperating with the Federal Health Service. Through examinations and investigations at this laboratory and an extensive education of the people, the mitigation and eradication of communicable diseases may be accomplished.

Are you ready to enter into an active campaign for such an arrangement? If so, we should be pleased to hear from you with any suggestions as to the most effective plan of putting this movement into force. Yours truly,

STATE BOARD OF ADMINISTRATION.
By Ed T. Hackney, President.

Efforts are now being made through Mr. Hackney's initiative to get Congress to pass the following bill:

AN ACT MAKING AN APPROPRIATION FOR THE SUPPORT OF MEDICAL INSTRUCTION AND RESEARCH IN THE INTEREST OF THE PUBLIC HEALTH OF THE UNITED STATES.

BE IT ENACTED by the Senate and House of Representatives of the United States in Congress assembled:

1. That in order to aid in the investigation and diffusion of information in regard to the public health and to establish a close co-operation between the public health services and the state hospitals, laboratories and research stations maintained by the states in connection with their medical schools, there is hereby annually appropriated to each state that shall maintain a medical school in connection with its state school system the sum of $25,000 annually, said sum to be paid to the governing body of said medical school in quarterly installments and to be used by said schools in providing research instruction, disseminating and promoting information in regard to the prevention of disease and the promotion of public health.

The Wyandottes Make Medicine.

Our aboriginal ancestry is so remote that we are not quite sure of the vernacular. If our forefathers ever hunted with the Wyandotte braves they left no tradition from which we can determine the proper epithet to use for this occasion. It may have been a "war dance," a "snake dance" or a "coon dance," but in the frontier civilization of our youth it would have been called a "helluva" good time.

The members of the Wyandotte County Society entertained the officers and members of the Council of the Kansas Medical Society on January 23. It was the occasion of their annual banquet and also the occasion of the meeting of the Council. Through a little conspiracy on the part of the officers of these two societies these events happened on the same date. This, in fact, is getting to be something of a habit on the part of these officers, and, though there may be some criticism from those who have no opportunity to attend, we venture the statement that no member of the Council has any fault to find. We have noticed that since this custom has been in vogue the attendance of the councillors at this January meeting has been unusually large. The only absentees at this meeting were the comparatively new members who have had no opportunity to

try the entertainment furnished by the Wyandottes. The innocent little missive, inviting the members to attend the banquet, gave no suggestion of the real entertainment, but those who had been favored before had some idea of what to expect.

We will hardly dare attempt a description of the proceedings and will simply say that this time it was a minstrel performance, and we honestly believe that some of the men who took part were real professionals. The commendable thing to be noted is the fraternalism which makes it possible for so large a body of men to work together in whatever they undertake to accomplish.

———R———

Council Meeting.

The mid-winter meeting of the Council was held in Kansas City on the 23d of January. All of the councillors were present except those from the sixth, eighth, and twelfth districts. The little routine business on hand was transacted with dispatch and the Council was ready to adjourn in an hour and a half. It is a part of the business of the Council, at this meeting, to elect an editor, but there seemed to be no opposition to the present incumbent and he was re-elected.

It has not been uncommon for the internal dissensions of county societies to be referred to the Council for pacification, but it has usually been able to avoid active interference by referring such matters back to the county society, with instructions to the councillor of the district to assist in their adjustment. At this meeting the Council was asked to interfere in a case of this kind, but one which had reached a stage where one of the fundamental principles of our organization was threatened. We will state the case as briefly as possible. Charges of unprofessional conduct had been preferred against a member of the society. Evidence was presented, but the charges were not sustained by a sufficient vote to expel the member. There were thirty-four members of the society. At the annual meeting thirteen members were present. A resolution was introduced, dissolving the organization. The vote was seven for and six against the resolution. The society was declared disbanded. A new society was immediately organized with new officers. All except the accused member were invited to become members of the new society. The new organization demanded recognition by the secretary of the State Society, which he refused. The Council sustained the secretary and ruled that the old organization was still in existence; that seven members of an organization of thirty-four could not surrender a charter granted under the rules of the society.

There was no other decision the Council could make. There was no question as to the integrity and professional loyalty of these advocates of clean methods in medicine, but as to the wisdom and propriety of the plan they adopted there was certainly some doubt. The society has set out a line of procedure to be followed in determining the fitness of men for membership, and in determining their fitness to retain their membership. Since the county society is only a unit of a very much larger organization, the American Medical Association, and is the only entrance to that organization, it is right that membership in the county society should be carefully safeguarded even though, at times, someone unworthy may be permitted to enjoy its privileges.

There are benefits accruing to the members of the society which are tangible—some that have a real monetary value. If a few members of a local society wish to forego these benefits they have a right to do so, but they cannot compel the other members to do so by voting to disband. As long as there are enough members in good standing to constitute a quorum they may meet and transact business.

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Sickness Insurance at K. U.

There are various points of view from which the subject of sickness insurance may be considered. From the producer's

point of view it becomes a question of efficiency.

Some wonderful improvements have been made in machinery and shop equipment in recent years, most notably demonstrated in the automobile plants where mechanical efficiency has reached the highest point of perfection. While great efforts have been made in the development of mechanical efficiency, the question of human efficiency has by no means been neglected. By thorough education and training, by specialization, by the perfection of mechanical aids and by the use of safety measures to prevent injuries and loss of time, it would seem that human efficiency had been brought almost to its highest point of development. There is an element of failure, however, in all these efforts toward its perfection. An element with which the giants of industry have been unable to cope. It has been determined that the average loss of time among the working classes, on account of sickness, amounts to nine days each year. This not only diminishes the living resources of the workingman, but it is a great loss to the producer. It curtails his output. It is an item of such vast importance that the employer is fully as much concerned as the employe in finding some method by which this element of loss may at least be reduced.

It is now the general concensus of opinion that some form of universal and compulsory sickness insurance will best solve the problem. Ostensibly the workingman and his immediate family are the only beneficiaries of such an insurance system, but if such were the case it would by no means meet the demands of the situation. Whatever plan is adopted must not only relieve the burden of the sick workingman, but it must also reduce the proportion of sickness and thereby also reduce the great industrial loss. It is in this direction that any system of sickness insurance that it adopted must prove its efficiency. The medical service of a dispensary under any sickness insurance regime must include more than the ordinary service to the sick. More attention must be given to minor ailments, frequent examinations must be made and preventive measures must be continually practiced. The inauguration of a universal sickness insurance seems to encourage more prompt attention to the symptoms of disease and greater tolerance of preventive measures on the part of the insured. There is much very satisfactory evidence of this where such systems have been tried out.

At the Kansas University a Health Service was established, something over a year ago. Each student is required to pay an assessment of two dollars each year and is entitled to examination, general advice and medical service in case of illness. A small hospital has been equipped and here, for a very small charge, student patients are cared for. An X-ray machine has been installed and a small operating room is provided for any surgical cases that may require operation.

When first inaugurated, there was considerable objection by the students, more on account of the assessment than on account of the plan itself, but after a time the matter of the assessment was accepted as one of the necessary evils of a college career and the students began to avail themselves of the benefits which they were compelled to pay for anyway. The fact that with something over 3,000 students the dispensary calls average 1,000 per month indicates, to some extent, the attitude which other classes of people might be expected to show toward organized sickness insurance. Most of these calls are for trivial things—but might have been the beginnings of severe ailments. A most notable demonstration of the efficiency of such a service was made in the prompt control of an epidemic of typhoid fever, the details of which are described in a paper by Dr. Sundwall, which appears in this issue of the Journal.

This experiment at the University has very clearly shown that the demand upon the medical service of any system of sickness insurance will greatly exceed any estimate based upon present conditions.

Services which have to be paid for, whether used or not, are usually pretty thoroughly tested. Any effort to curtain these privileges will tend to defeat the ultimate good results of the insurance system, at least from the employer's point of view.

The Skeptics.

The man who always bows to the dictum of recognized authorities will never himself be an authority.

The critic is usually feared, but seldom universally loved. Putting a kink in one's pet theories is as bad as putting a heel on one's corns.

Practically all the progress the world has made is due to skepticism. Dogmatism is opposed to progress.

The great advances which have been made in medicine during the past half century are due to the fact that skeptics have become more fearless, more numerous, and have been more generally encouraged.

Electro-Therapeutics.

What are you doing in electro-therapeutics? It would be interesting and instructive if those of you who have had some experience with this line of therapy would write a synopsis of your results in different conditions. A great deal of progress has been made in this field, but a comparison of the methods of application and of the results obtained would be of considerable advantage to all of us.

Some Health Resort.

In proof of the benefit of a certain health resort in California, our old friend Dr. Minney relates the following: "A man went there ten years ago so poor that the flesh on his bones would not bait a trap. Now he has to put sleeves in a bed tick and pull it down over his head for a shirt." In extenuation we might just mention that the doctor has lived in California for some years.

It is said that animal and vegetable growth is stimulated by mild currents of electricity; that radium emanations and radioactive substances produce similar effects; and that both act as tonics in small doses. It is also said that small doses of radium stimulate the growth of abnormal tissue.

Dr. M. C. Porter, one of the leading surgeons of Kansas, died on January 29. Dr. Porter was fifty-four years old and had practiced medicine in this state since 1890. He came to Topeka several years ago and since then had confined himself to operative surgery. There were evidences of a chronic nephritis and a chronic endocarditis and a history of general decline from his normal standard of health. Two or three weeks prior to his death he submitted to an operation for the drainage of a suppurating antrum and several days subsequent to this an acute infection of the pericardium and kidneys supervened.

Dr. L. A. Ryder, one of the most prominent of the homeopathic practitioners in Kansas, died in Topeka, February 5. Dr. Ryder was fifty-five years of age and had practiced in Topeka since 1883. He was for many years a member of the State Board of Registration and Examination. From reports available the cause of death was diabetic gangrene.

SOCIETY NOTES.

NORTHEAST DISTRICT SOCIETY.

The Northeast District Medical Society will meet in Leavenworth on Thursday, March 1. The following program has been arranged:

"The Bone Graft versus the Plate," Dr. Hugh L. Charles, Atchison.

"An Increased Specificity of the Wassermann Reaction," Dr. L. A. Lynch, Kansas City.

"Fractures of the Skull," Dr. R. C. Lowman, Kansas City.

"The Protective Influence of the Liver," Prof. S. A. Matthews, Lawrence.

"Cholelithiasis," Dr. W. F. Bowen, To-

peka.

"X-Rays in Diagnosis" (illustrated by slides), Dr. E. H. Skinner, Kansas City, Missouri.

"The Metabolism of Diabetes," Dr. H. J. Stacey, Leavenworth.

Officers—President, Dr. J. F. Hassig, Kansas City; vice-president, Dr. A. B. Jeffrey, Topeka; secretary-treasurer, Dr. J. L. Everhardy, Leavenworth.

SUMNER COUNTY SOCIETY.

At a meeting of the Sumner County Medical Society November 7, 1917, the following officers for the present year were elected: President, Dr. E. A. Evans, Conway Springs; vice-president, Dr. D. J. Downing, Wellington; secretary, Dr. W. H. Neel, Wellington.

The Sumner County Medical Society met in called session January 24, 1917, at 8 p. m., at Wellington, Kansas. The object of the meeting was to discuss plans for defeating a proposed legislative measure pending in our state legislature, which if passed would prevent the physicians of the state dispensing their own drugs and compel them to write prescriptions to be filled only by registered pharmacists.

There was a good attendance of physicians from over the county. A committee was appointed to draft resolutions denouncing such legislation, the same to be presented to our state senator and representatives.

W. H. NEEL, Secretary.

MIAMI COUNTY SOCIETY.

The following program was given at the January meeting of the Miami County Medical Society, held at the State Hospital, Osawatomie, on Friday, the 26th, at 8 p. m.:

"Lesions of the Spinal Cord" with lantern slide illustrations, Dr. A. L. Skoog, Kansas City.

"Care of the Perineum in Delivery," Dr. J. D. Walthall.

"Toxemia of Pregnancy," Dr. B. R. Riley.

LEAVENWORTH COUNTY MEDICAL SOCIETY.

This society held its annual election on January 8, 1917. Officers elected: President, Dr. F. B. Taylor, Leavenworth; vice-president, Dr. C. J. McGee, Leavenworth; secretary-treasurer, Dr. J. L. Everhardy, Leavenworth.

The society meets twice monthly, on the second and fourth Mondays. No papers are written by members this year. We are reading and discussing the papers of the Massachusetts General Hospital.

J. L. EVERHARDY.

KINGMAN COUNTY SOCIETY.

The Kingman County Medical Society met in Kingman December 8, at the Masonic Hall. There were seven Kingman County doctors present, four from Wichita, four from Hutchinson and one from Pretty Prairie. The meeting was called to order at 4:30 and Dr. W. K. Trimble of Kansas City gave a lecture on Syphilis, illustrated with lantern slides. At 6:30 the society adjourned to the home of Dr. H. E. Haskins, where dinner was served. The society reconvened at 8:30 and Dr. John Sundwall of K. U. gave a lecture on The Structure and Function of the Ductless Glands. Both lectures were enjoyed by those present.

On Friday, January 12, the society had a business meeting at which the following officers were elected for the current year: J. W. Light, Kingman, president; B. H. Pope, Kingman, secretary; H. E. Haskins, Kingman, treasurer.

C. W. LONGENECKER, Secretary.

DICKINSON COUNTY SOCIETY.

At the annual meeting of the Dickinson County Medical Society the following officers were elected: H. W. Wright, Enterprise, president; H. Marshall, Herington, vice-president; H. P. Mera, Abilene, treasurer; J. N. Diter, Abilene, secretary.

DOUGLAS COUNTY MEDICAL SOCIETY.

The Douglas County Medical Society, at the regular annual meeting, elected the

following officers for 1917: E. J. Blair, Lawrence, president; W. C. McConnell, Lawrence, secretary.

DECATUR-NORTON COUNTY SOCIETY.

The annual meeting of the Decatur-Norton County Medical Society was held in the Cozy Theater, Norton, Kansas, January 12, 1917. The out of town doctors in attendance were: W. J. V. Deacon, Topeka; E. J. Beckner, Goodland; W. E. Knox, Norcatur; F. E. Richmond, H. W. Norris and A. G. Davis of Logan, H. O. Hardesty, Jennings, and O. M. Cassell, Long Island. Those from Norton, C. W. Cole, F. D. Kennedy, R. M. Tinney, W. C. **SIXTEEN—Medical Journal Rich** Lathrop and C. S. Kenney.

The program consisted of the address of the out-going president, F. D. Kennedy, an address by W. J. V. Deacon, State Registrar of Vital Statistics on "Vital Statistics," and an illustrated talk on "Some Unusual Fractures," by W. C. Lathrop.

The following officers for 1917 were elected: President, R. M. Tinney, Norton; secretary, C. S. Kenney, Norton; censor, L. C. Tilden, Oberlin; delegate to state meeting, C. W. Cole, Norton; alternate delegate, A. G. Davis, Logan.

C. S. KENNEY, Secretary.

BOURBON COUNTY MEDICAL SOCIETY.

The Bourbon County Medical Society met in regular session at the Library building, Fort Scott, January 15, 1917, with thirteen members and one visitor present.

Dr. W. L. Hopper presented a very interesting discourse on the diagnosis, differentiation and treatment of acute conjunctivitis, acute iritis, and acute glaucoma, from the general practitioner's standpoint.

Three petitions for membership were received and referred to the Board of Censors.

C. F. YOUNG, M.D., Secretary.

Propaganda for Reform.

Toxicity of Salvarsan and Neosalvarsan. —Claude L. Shields, M.D., Salt Lake City, reports that out of the last twenty-three injections of neosalvarsan four cases exhibited severe poisoning and one resulted in death. He reports the experience of other physicians of severe toxic symptoms from the use of recent shipments of salvarsan and neosalvarsan. (Jour. A.M.A., Jan. 6, 1917, p. 53.)

The Search for the Ideal Antiseptic.—R. A. Lambert has followed the effect of the same chemical agent on bacteria and tissue cells growing together in vitro. He finds that the growth of tissue cells is more easily affected by potassium cyanide, phenol, tricresol, hydrogen peroxide and alcohol than was the growth of bacteriæ. Iodin stands out as the one chemical tested to which tissue cells were found more resistant than were staphylococci. A good growth of cells was seen after exposure to a 1 in 2000 solution of iodin for an hour—a strength sufficient to sterilize the tissue completely in most instances. Lambert points out that the power of iodin to dissolve fibrin may be an objection to its use as an antiseptic wound dressing. (Jour. A. M. A., Jan. 6, 1917, p. 40.)

Acetylsalicylic Acid, Not Aspirin.—While Aspirin-Bayer has been omitted from New and Nonofficial Remedies, the product is retained under its scientific name, acetylsalicylic acid, and standards are provided to insure the reliability of the market product. The Aspirin patent expires in February, 1917, and after this time other manufacturers may make and sell the product. One firm's brand, that of the Powers - Weightman - Rosengarten Company, has been accepted for New and Nonofficial Remedies, 1917. Hereafter physicians, when prescribing the compound, should use the scientific name, "acetylsalicylic acid." (Jour. A.M.A., Jan. 20, 1917, p. 201.)

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Acute Polio-Myelitis

G. WILSE ROBINSON, M.D., Kansas City, Missouri.

Read before the Allen County Medical Society, November 13, 1916; also read before Atchison County Medical Society, December 6, 1916.

I use the name, acute polio-myelitis, in discussing the disease which is known by that name because it has come into very general clinical use, although it does not accurately describe the anatomical and pathological changes of the disease. The names which have been used and suggested for the disease are numerous: Spinal infantile paralysis, epidemic infantile paralysis, epidemic polio-myelitis, meningo myeloencephalitis disseminata, polioencephalomyelitis, Heine Medin disease, acute anterior polio-myelitis and acute polio-myelitis. This disease has been known to occur in epidemic form since 1881. During that year a mild epidemic was reported as having occurred in Sweden. In 1883 some groups of cases were recorded in Italy; in 1886 in Norway, Germany and France. The number of cases occurring in these epidemics was small. In 1894 an epidemic of 132 cases occurred in Rutland, Massachusetts. Mild epidemics were recorded in the 90's in Italy, France, Australia, England, and America, and a larger one occurred in Vienna and in Norway and Sweden in 1899. In the middle of the decade between 1900 and 1910, Batten says that the record of cases which had before been limited to two figures now reached four figures. During the years 1903 and 1907 it is said that the disease was pandemic in Norway and Sweden. Larger epidemics occurred in the states of New York and Massachusetts during the years 1907 and 1910. At the same time epidemics were reported in Australia, Vienna, Westphalia, Paris, Austria, Switzerland and Russia. Epidemics occurred in the United States during the year 1910, the total number of cases reported 5,093, with 825 deaths, a mortality of about 13.75 per cent. From the above brief historical account of the disease we can readily perceive that it is and has been for a considerable number of years world-wide in its distribution.

F. E. Batten of London in his Lumein lectures called attention to the fact that the epidemics in Massachusetts in 1909 and 1910 were most carefully investigated by Lovett and his co-workers, and in Cincinnati and Batavia in 1911 and 1912 by Wade Frost in regard to all of the following factors: Rainfall, temperature, surroundings, nearness to railroad, nearness to water, age of house, sanitary conditions, location of house, character of house, floor of house, inhabited by a family, sewage disposal, character of water supply, relation to dust, prevalence of vermin, insects and roaches, data as to domestic animals kept, occurrence of paralysis in animals, swimming and wading, exposure to heat, cold or damp, diet and attendance at school. No common factor could be found, no relation to dust, prevalence of vermin or the keeping of domestic animals could be ascertained.

There are some factors, however, common to all epidemics, one is seasonal relationship. In the northern hemisphere the disease has its greatest prevalence during the months of July, August, September and October, the greatest number of cases usually occurring during the months of August and September. March and April correspond in atmospheric conditions in the southern hemisphere to August and September in the northern hemisphere. It has been noted that the disease is more prevalent during the months of March and April in the southern hemisphere than of any other months. The only epidemic reported from Cuba occurred in 1909, the disease had its great-

est prevalence there during the months of August and September.

Age Incidence. It is a disease of early childhood, more than 75 per cent of all cases occurring before the fifth year. It rarely attacks babes in arms, but is most prevalent during the ages of two and three years.

It has been suggested by Wickman and others that acute polio-myelitis is really a very common disease and that the reason why older children and adults do not often contract the disease is because they have had it in a mild form during early childhood. It is now known that many of the children having the disease do not become paralyzed.

Mortality. The reports as to the percentage of mortality vary considerably. Of the total number of cases reported, it amounts to 11 to 12 per cent. Some epidemics have reached as high as 16.6 per cent. I believe the mortality to be very much lower than this figure, as many of the so-called milder and abortive cases are not reported.

Incubation Period. This is usually from one to four days; in some few cases the symptoms of the disease have appeared as early as twelve hours after exposure.

Spread of the Infection. Wickman proved that the disease is spread by means of human carriers along the lines of communication, roads, railways, and so forth. He also reported four examples of spread from schools. The most notable example of spread from school was reported by Wickman as having occurred in Trastena, a little village of 102 houses, of which nineteen were affected. The school was infected by a child attending on June 28, a series of cases which could directly or indirectly be traced to the school occurred in July and August. Of 500 inhabitants, forty-nine persons were affected, twenty-three having the abortive form of the disease and twenty-six with the paralytic form. Of the paralysis cases eleven died. Dr. Simon Flexner says infantile paralysis or acute polio-myelitis is an infectious and communicable disease which is caused by the invasion of the central nervous organs, the spinal cord and brain, by a minute micro-organism which has now been secured by artificial culture and as such is distinctly visible under the higher powers of the microscope. This micro-organism has been termed a virus and is constantly present in those affected with the disease in the following locations: In the central nervous organs, and on the mucous membrane of the nose, throat and intestines. It has not been detected in the general circulating blood of patients. The virus has been found in the mucous membrane of the nose and throat of healthy persons who have been exposed to the disease, such persons are carriers of infection and transfer the infection to other persons, chiefly children with whom they come in contact. The virus lives much longer upon the mucous membrane of the nose and throat than it does in the central nervous organs. It has been found present in the nose and throat of monkeys six months after exposure to the disease. It is for this reason that health laws have provided that all of the members of a household where a case has occurred be quarantined. Another great menace to the community are those children having abortive attacks, namely attacks causing them to be slightly ill for a few days, polio-myelitis being not suspected, and are permitted to return to school or play and come in contact with other children. It has been proven that the virus which may cause an abortive attack in one child when transferred to another child may cause an attack of the most severe character, with subsequent paralysis and perhaps death. The virus is known to leave the body of an infected individual in the secretions of the nose, throat and intestines. It also escapes from contaminated healthy persons in the secretions of the nose and throat. It is not known to leave the body in any other manner. Formerly it was supposed to be transferred by blood sucking insects but as the virus has never been found in the general circulating blood, this idea has been practically abandoned. Flexner says the virus enters the body as a rule, if not exclusively, by means of the mucous membrane of the nose and throat and then enters the lymphatic channels which connect the upper nasal membrane with the interior of the skull. Many theories have been advanced of other means of entrance into the body but no other means of entrance is definitely known. Observations upon human cases of infantile paralysis and upon animals all indicate the main avenue of entrance of the virus into the body is by way of the upper respiratory mucous membranes. It is discharged from the throat and nose and distributed by coughing, sneezing, kissing and by means of the fingers and articles contaminated with these secretions as well as with the intestinal discharges. It is a hardy virus and withstands for a long time even the

highest summer temperature, completely drying, and even weak chemicals, such as glycerine and carbolic acid, which destroy ordinary bacteria. If the virus is not immediately transferred to some other individual by direct contact or through the atmosphere, the secretions containing it are dried, mixed with the dust and breathed into the nose and throat, and in this manner become a source of infection. Weak daylight and darkness favor the survival of the virus while bright sunlight readily destroys it. Flies may become contaminated with the secretions around the nose and throat of an infected individual and transfer it to healthy individuals. It has been experimentally proven that flies so contaminated remain ineffective for a period of forty-eight hours or longer. Domestic animals have been suspected of being carriers of the infection and there is a widespread belief that the paralysis to which dogs, cats, even sheep, cattle and horses are subject, are of the nature of infantile paralysis. Flexner says the evidence is against domestic animals being carriers of the infection and that the paralyses to which they are subject is not due to the virus of acute poliomyelitis. The epidemics of acute poliomyelitis like epidemics of all infectious diseases vary in severity or intensity. In some epidemics the majority of cases are very mild while in others they are quite severe in character. This is due to two factors: One the relative potency of the virus and the other to the degree of susceptibility among children and others infected which at one period may be greater or less than at others. Children living together and of the same family may vary in susceptibility. Wickman explains the nature of the abortive attack and says a more careful examination of those children in the family in which a severe attack develops proves that many of those who seem to escape the infection in reality have the disease in the mild or abortive form. The danger of communication is supposed to be greatest during the very early and acute stages of the disease. The life of the virus within the body is as a rule not longer than five or six weeks, and six weeks has been arbitrarily established as the duration of isolation and quarantine of those having the disease. Acute polio-myelitis is one of the infectious diseases which confers immunity, and renders the patient insusceptible to a subsequent attack. The blood of persons or monkeys who have not had the disease will not destroy the virus. Monkeys have been rendered immune by inoculating them with ineffective doses of the virus or by injecting the serum of recovered patients or monkeys about the membranes of the spinal cord before injecting the virus within the brain. To be effective, these injections must be repeated several times. After the individual is inoculated by the virus, as previously stated, there is an incubation period of from twelve hours to several days. At the end of this incubation period there begins what is termed the prodromal period. This is the period intervening between the beginning of symptoms and the development of the paralysis. It is during this period that a diagnosis should be made and treatment to be effective must be administered. The duration of this period varies from one to seven days, on an average from two to three days. The severity of the prodromal symptoms vary greatly and it is generally conceded that the relative severity has no relation to the extent of the ensuing paralysis or to the subsequent course of the disease. Symptoms during this period are on the whole of a general nature, a few being more specific in character, and cast some light on the nature of the disease. They are generally those of an acute infection, or may be such as occur in children with very little recognizable cause, and, as a whole are constantly present in the majority of all cases. Fever is a prominent symptom and it is usually not preceded by a chill. This fever may be 103 or higher, morning temperature being slightly lower than the evening. Fever usually subsides at the time or shortly after the onset of paralysis; in some cases respiratory symptoms are prominent, these symptoms being of the nature of an acute coryza or bronchitis. In other epidemics, diarrhoea is a prominent symptom. Accompanying the fever, and perhaps dependent upon it, is drowsiness, in some cases this is a prominent symptom. The patient being apathetic and wanting to sleep most of the time, the apathy is usually out of all proportion to the fever. Mental and physical irritability frequently replace drowsiness, the child being excited and complaining. This irritability or hyperesthesia is regarded by some as being one of the three cardinal symptoms of the prodromal period. Pain on passive movement is often complained of. The mother observes that the child cries when handled or moved, pain being especially complained of when the body is moved in such a way

clearness of the fluid eliminates the purulent type of meningitis, but as the fluid of tubercular meningitis is also clear it is necessary that a cystological and bacteriological examination be made. In all well developed cases of tubercular meningitis the tubercle bacillus is found in the fluid. If the tubercle bacillus be not found we must conclude that we are dealing with a lymphocitic meningitis from which recovery is possible. The causes of lymphocitic meningitis are numerous, the most common being thrombosis of the cerebral veins, middle ear disease, mumps, measles, syphilis, infective meningitis or polio-myelitis. In such cases it is not possible to diagnose polio-myelitis by examination of the cerebro spinal fluid. It is only by eliminating the various other conditions which may cause a serous meningitis and correlating the clinical symptoms with the serological findings that a diagnosis of polio-myelitis of the meningitic form can be made.

The Neuritic Form. The virus of polio-myelitis may attack the peripheral nerves. Patients having this form have considerable pain, much tenderness over the nerve trunks with the general clinical symptoms of polio-myelitis and symptoms referable to the peripheral nerves symmetrically distributed over the trunk and extremities. Weakness with atrophy are secondary manifestations.

The Prognosis. The prognosis varies considerably, depending upon the type of the disease. It is quite unfavorable in the cerebral forms, but is less favorable in the mid brain and bulbo-pontine type. The most common cause of death in polio-myelitis, as previously stated, is respiratory paralysis and it is in those cases in which the medulla is attacked, giving bulbar palsy, that respiratory paralysis occurs. The ascending spinal type is also very fatal. The prognosis as to life is favorable in the low spinal type, also in the meningitic and neuritic types of the disease and is most favorable in the abortive type.

The Pathology. Most observers agree that the pathological and histological changes characteristic of polio-myelitis are similar in man and monkey. The lesions consist of necrosis and degeneration of the ganglionic nerve cells with edema, hemorrhage and leukocytic infiltration of the ground substance, the sheaths of the blood vessels and the membranes. Wickman believes that the virus produces both interstitial and parenchymal lesions. Flexner concludes that the virus acts chiefly upon the interstitial element of the meninges causing a cellular infiltration, chiefly of lymphocites, with accumulation most abundant about the blood vessels through which the parenchyma becomes injured and destroyed.

Kling, Petterson and Wernstedt describe two distinct pathological conditions in monkeys dead of polio-myelitis, the one type the parenchymatous, the other interstitial. First: The infiltrative pathological picture commonly presented by the spinal cord of monkeys in experimental polio-myelitis. Second: The degenerative type in which cellular infiltration is absent and the striking change is degeneration of the nerve cells. This degeneration affects not only the nerve cells but also the cells of the glia. They describe two degenerative types. The one in which the ganglion nerve cells are encroached upon by a large number of cells which are polymorphoneuclear leucocytes and polyblasts, the polyblasts being, according to Wickman, neuronophages, the second in which a cell having a large clear rounded cell body eats its way into the ganglion cells which the author describes as the glia-cell neuronophagia. The meninges usually show more or less diffuse infiltration with round cells, the layers immediately next to the white matter of the cord tend to show more cells than the layer next the dura mater. The greatest accumulation of cells is about the arteries and veins, the sheaths of which are surrounded by cells.

The effect of these cells upon the lumina of the smaller vessels is considerable. The meningeal cellular invasion is only interstitial and does not give rise to an exudate upon the surface of the cord or brain such as occurs in acute exudative inflammation.

The authors, Kling, Petterson and Wernstedt come to the conclusion that the degeneration of the ganglion cells, as well as the cellular and humoral exudation, are to be regarded as the results of a direct injurious influence of the virus of polio-myelitis for in the past the changes in the nerve elements have been regarded as secondary to the infiltration of the tissues.

The Treatment. First, general: Patients having the disease should be isolated during the primary stage, in accordance with the general plan of treatment of other acute and infectious diseases. The nasal and buccal mucous membranes should receive careful attention as it is known that the virus abounds in these localities. Discharges from the nose and

mouth should be received in a vessel containing an antiseptic solution sufficiently strong to destroy the virus. The nose and mouth should be cleaned three times per day with some antiseptic solution such as two-tenths per cent solution of permanganate of potash, chlorine water or peroxide of hydrogen. The management of the acute stage will depend upon the character and severity of the symptoms manifest. The fever should be controlled by hydro-therapy, and convulsions in much the same manner, and by lumbar puncture. There may be pain with rigidity of the neck and spine, the pain may be intense, sometimes so severe that the patient dreads the least touch of the bed or bed clothes or movement of the affected limbs. The patient may be unconscious, following a convulsion with marked head retraction. Such patients should be kept very quiet and carefully protected from anything which will irritate them.

Second, serum treatment: It is known experimentally that immune serum has no power to prevent the development of the disease when injected simultaneously or after the virus has been injected. Flexner and Amos have shown that the intrathecal injection of immune serum is effective if introduced in the preparalytic stage in delaying and preventing paralysis, and Netter has used the intraspinal injection of immune serum successfully, in the acute ascending varieties. In one case eight injections were given, from four c.c.'s to twelve c.c.'s obtained from a series of old cases of polio-myelitis. The technique is as follows: Some twenty to thirty c.c.'s or more of blood are obtained by a venal puncture from a patient who has passed through an attack of polio-myelitis, the length of time intervening is unimportant as the blood has been proven to be viricidal for several years after the attack.

A Wassermann reaction must be done to determine as to whether or not the person from whom the immune serum is to be obtained is free from syphilis. The serum is separated by allowing the blood to clot or by centrifugalization, warmed to 98 degrees Fahrenheit, a lumbar puncture is done on the patient and an amount of cerebro-spinal fluid is withdrawn, the quantity depending upon the fluid pressure. If the fluid pressure be high, an amount of fluid is permitted to flow away greater than the quantity of serum to be injected. Many of the more acute symptoms, such as headache, irritability and convulsions, are relieved by withdrawing enough cerebro-spinal fluid to lower the pressure. After the fluid is withdrawn about ten c.c.'s of the immune serum is injected into the subarachnoid space. This is repeated daily for three or four days or more. This form of treatment is only beneficial in the preparalytic stage, or during the stage of progression of the ascending or descending type of the disease. The principal difficulties of this treatment are in obtaining a sufficient quantity of immune serum from a patient who has been previously tested with the Wassermann reaction. The blood serum of animals has been tried but is found of very little value, the serum of horses and rabbits had no viricidal action, sheep serum was slightly active, but the degree of activity appears to have been very small.

Third, drug treatment: As previously stated, one of the most distressing symptoms is the pain associated with the disease. This can, to a large extent, be relieved by careful support of the limbs of the patient and the arrangement of the bed. The administration of aspirin is very beneficial, in some cases morphine is needed. Urotropine is regarded as being of some value. It should be administered to young children in large doses, ten grains every four hours; it reaches the cerebro-spinal fluid and is supposed to have some viricidal action but such an assumption has not been definitely proven. The principal disadvantage in administering it in such large doses is that it may cause hematuria.

Rest, posture and re-education: There is no doubt that rest is a most important method of treatment. Too early movement of the patient may restart the disease and cause a relapse. A child with acute polio-myelitis should be kept absolutely at rest in bed for at least three weeks; if the case has been of unusual severity, the period of rest in bed should be even longer. In addition to rest in bed the muscles should be given physiological rest. Normal muscles are possessed of a certain amount of tension or tone and there is a reciprocal innervation of the muscles. The paralysis seen in polio-myelitis is usually of groups of muscles or parts of muscles and if a group of muscles be paralyzed and thereby lose their tone, muscles of the opposing group are stimulated to overaction. For example if the extensor muscles of a limb or segment of the limb be paralyzed the flexor muscles shorten, the limb is hyperflexed and

the paralyzed muscles overstretched. This over action must be prevented for the following reasons: First, it prevents complete rest of the anterior horn cells; second, the over stretching of the affected muscles interferes with their recovery. The limb must therefore be put in such position as will bring about relaxation of the paralyzed muscles, but as William McKenzie points out, relaxation is only the beginning of treatment, more than this is required and that is re-education of the paralyzed muscles. A paralyzed muscle that is constantly stretched is at a disadvantage and will not recover its power and tone. Posture is therefore the great factor in securing physiological rest of the muscle and it is important to consider what is the zero position of any given muscle. McKenzie defines the zero position as the position of anatomical rest in which the individual muscle itself is relaxed and both its own actions and that of its opponents prevented. Sherrington has shown that the distribution of tonus is arranged on a plan of strict co-ordination, and that reflex tonus embraces those movements which counteract the effect of gravity and that postural contraction can be maintained for long periods without fatigue. A position which can be maintained without fatigue must be the position of rest.

Rest, posture and re-education are then the important methods of treating muscles which have been paralyzed by poliomyelitis. Numerous methods have been adopted for keeping the paralyzed muscles at rest and in a state of relaxation. Some consider rest in bed as sufficient, others place the limbs between sand bags, others place boards at the bottom of the bed to keep the foot in a dorsi-flexed position, various splints of metal and other material have been used. Some have used plaster of paris moulds. The disadvantages of all of these methods is that they immobilize the child for weeks or months and give no opportunity for re-education. A removable plaster of paris splint can be used to some advantage, the purpose of its removal being to give an opportunity to manipulate, massage the leg and treat it electrically. It is my opinion that the best form of support which will meet all the requirements of the paralyzed muscle, rest, relaxation, and re-education, is the celluloid splint which is advocated and used so extensively by F. E. Batten of London. As soon after the acute stage as possible, usually at or before the expiration of a three weeks' period, a celluloid splint is fitted to the paralyzed part. The manner of construction of the splint in brief is as follows: A negative plaster-of-paris cast is made of the paralyzed part of the leg, the foot is held at a right angle to the leg and the knee slightly flexed. After the negative cast is hardened it is removed, all except the upper opening is closed with plaster-of-paris bandages, this is filled with a mixture of plaster of paris and water, the mixture is permitted to harden, the negative cast is removed and we then have a positive cast of the part on which is to be fitted the celluloid splint. A layer of stockinette or felt is sewn over the positive cast, over this is placed a layer of gauze or book muslin so cut as to conform to the shape of the cast, on this is painted a coat of celluloid solution consisting of eleven ounces of celluloid to 160 ounces of acetone, to which is added three ounces of calcium chloride dissolved in two ounces of hot water which should be added to the celluloid solution while still hot, and all well shaken. After the celluloid solution has dried on the first layer, another layer of gauze is applied, this process is repeated until from twelve to eighteen coats of celluloid solution are painted on as many layers of gauze, the number varying with the age of the patient and the character of the part to be splinted. After the final coat is dried a layer of celluloid varnish is applied, two incisions are now made about one-half inch apart and a strip of the splint removed at the point at which the opening is to be made. This permits the removal of the positive cast from the interior of the splint. The splint is now ready to be fitted to the patient. After the fitting process is completed, the edges of the splint are bound with leather and boot hooks are inserted. It is now ready for wear. The splint is to be worn next to the skin as a stocking inside will force it out of place. It is to be applied while the patient is still in bed, laced on and worn day and night, being removed twice a day for massage and passive movement. If it causes suffering by pressure at any point it should be manipulated in an attempt to give relief. If relief can not be obtained in this manner some of the splant should be cut away rather than to put wool or cotton inside the splint at the point of pressure. It is desirable that the patient be up and walking as soon as possible after the onset of the disease. Aided by the splint, the average patient walks at the end of the first

month without liability to deformity. A walking apparatus is necessary at first but many patients gain in strength so rapidly that they are soon able to walk alone. Slippers or shoes should be fitted and worn over the splint, as walking is thereby made easier. Many patients with polio-myelitis recover so rapidly the splints are no longer needed after a few months while others may need to wear them even up to a year. If walking is not possible without support at the end of this time, a metal brace should be applied when the splints are discarded. In some cases of this disease there is never sufficient restoration to enable the patient to walk without some support, in those cases a metal brace will answer better after the splints have served their purpose.

The Physiology of the Spleen and Its Relation to Splenic Surgery

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The ancients believed that the spleen bore some relation to the speed of runners and are said to have sometimes removed it to produce greater swiftness. We know definitely that Aristotle believed that the presence of the spleen was not necessary to life. Galen considered it an organ full of mystery, and thought that it probably removed the melancholy from the blood. Pliny, in his Natural History, states that runners, when troubled with the spleen, had a method of burning it with a hot iron.

Experimental removal of the spleen was done as early as 1680 by Zambeccari. He removed a dog's spleen and four months later found in the mesentery numerous small bodies resembling hemolymph nodes. Marcello Malpighi, who first described the corpuscles of the spleen that now bear his name, experimented on dogs by ligating the splenic vessels. The dogs lived without any change in health except that they became more voracious and lazier and much fatter. During the seventeenth and eighteenth centuries numerous other observers removed the spleen of animals experimentally. Among these Harvey and his pupils are said to have extirpated the spleen in dogs.

The first example of splenectomy for a diseased spleen in a human being was recorded in 1549. Zaccarelli[1] removed the spleen of a Greek woman who completely recovered from the operation in twenty-four days.

Progress in splenic surgery was very slow up to the last quarter of the nineteenth century. Since that time many cases are recorded in which the spleen was removed for such conditions as leukemia, splenic anemia, Banti's disease, pernicious anemia, congenital hemolytic jaundice, injury of spleen, tumors of spleen, abscess, wandering spleen, chronic malaria, Egyptian splenomegaly, kala azer and hypertrophic cirrhosis of liver. Splenectomy at present is not an uncommon operation.

The physiology of the spleen is still full of mystery, but perhaps not to such a great extent as it was in the days of Galen. Since such an early day much theorizing has been done concerning the splenic functions, but the facts established have been very few.

The close association between the spleen, lymphatics, and bone marrow is very generally conceded, but whether or not it is in any way functionally related to the other ductless glands, the pancreas and liver, is still subject to final decision.

Blaud-Sutton[2] speaks of the spleen as a highly developed and specialized lymph gland, the work of which, in case of splenectomy, is performed by the lymphatics: This view is substantiated by the finding of enlarged hemolymph nodes after splenectomy. Such findings, however, are seriously questioned by some, notably Meyers[3] of Stanford University.

Vulpius[4] found in his experiments that the lymph glands and bone marrow showed an increased blood formation after splenectomy, and that blood regeneration is perhaps prolonged. Numerous experiments have been done in attempts to determine whether or not the spleen in extra-uterine life is a blood-forming organ. It is a well recognized fact that the spleen is a blood-forming organ in intra-uterine life. Crede believed that the spleen had an important function in changing white into red corpuscles and that after splenectomy there was an increase in leukocytes until some other organ assumed that function. This other organ, he says, might possibly be the thyroid gland. Zesas[5] concurs in the above belief. Gibson[6] concludes that the blood-forming action of the spleen is a subordinate one in extra-uterine life, but when reserve blood-forming capabilities are called upon its activity is greatly increased. Dudley Morris[7] found a marked difference between the number of leukocytes in the splenic artery and vein, there

being often twice as many in the latter. The large mononuclears appeared in excess in the vein. The erythrocytes were also found increased in the vein. Morris therefore concludes that the spleen is a blood-forming organ of prime importance. Malassez and Picard[8] likewise found that blood returning from the spleen richer in red cells than that of the splenic artery. Paton, Gulland and Fowler[9] in an earlier study state that in the dog, cat and rabbit there is no evidence that the spleen has any important action as a blood-forming organ. Thus the conflicting opinions leave us without any definite knowledge of the blood-forming function of the spleen.

Whether or not the spleen has a blood-destroying function is a question that has been much discussed. It seems rather strange that the spleen in prenatal days is a blood-forming organ which after birth becomes a blood-destroying organ. Gibson believes that the spleen and bone marrow and possibly the lymphatic glands contain cells whose function appears to be to break down red corpuscles. I quote the following from Gilbert Barling[10]: "It has in part a very slow blood current owing to the terminal arrangement of some of the arteries which do not end in capillaries but in dilated spaces in the splenic pulp. In this slow current the leukocytes pick up the damaged and worn-out red corpuscles, digest them, break them up into coloring matter, and with part of it produce some, at all events, of the coloring matter of the bile. Beyond this main function it is probable that the spleen takes some part in the destruction of infections, again through the leukocytes in its meshes, and it may have a hormonal function which to some extent controls pancreatic secretion." The spleen has been termed a scavenger for dead erythrocytes performing the function of destroying the worn-out red corpuscles.

It is believed by many that the spleen bears some definite relation to the resistance to infections. Courmont and Duffon found that spleenless animals resist diphtheria better than the normal ones, and the more recent the removal the more marked the resistance. Lewis and Margot[11] showed that splenectomized mice were definitely more resistant to infection with the bovine tubercle bacillus than were normal mice. Apolant[12] reported that the removal of the spleen diminished the resistance of the body to inoculations of tumors. Oser[12] and others found that the splenic tissue arrested the development of inoculated sarcoma in mice.

There is some evidence for the belief that the spleen aids in the retention of iron for the body. It may also, in some way, aid in the assimilation of sugar.

King[13] suggests that we may have conditions of hypersplenism and hyposplenism in certain of the splenic diseases much as we have in diseases of the thyroid and pituitary. His work led him to the conclusion that the spleen may be a central point in many diseases in which hemolysis and anemia are active, especially in pernicious anemia. Removal of the spleen he found to cause an increase in the total fats and cholesterin of the blood which are antihemolytic, and diminishes the activity of the unsaturated fatty acids which are hemolytic. The presence of these highly unsaturated fatty acids are intimately connected with the activity of the spleen, in other words there is a condition of hypersplenism. In pernicious anemia, hemolytic jaundice, some types of catarrhal jaundice and cirrhosis of the liver, the hyperactive spleen unfavorably influences the anemia. Splenectomy in such cases appears to be indicated.

With all of the wealth of splenic experimentation that the literature posseses we are still without any very definite knowledge of the functions of the spleen. But we do know that the animal organism can live without the spleen, and live, after a few months, without any disturbance of its economy as far as can be determined. After splenectomy most observers report a transient anemia and leukocytosis. Our own experiments on rabbits confirm the anemia but the leukocytosis did not appear after removal of the spleen. The anemia began at once after the operation and the blood count again reached normal in about two months. No constant change was noted in the platelets or coagulation time.

The practical application of splenectomy is difficult because we deal not with the normal spleen as in experiments but with disease of that organ and often of various other organs. But with the fact established that the animal economy is not seriously disturbed by the extirpation of the normal spleen we can proceed more rationally to the treatment of disease by splenectomy.

The removal of the diseased spleen is often a very difficult task and the operation should always be looked upon as one of major proportions. When splenectomy is indicated the operation is too often postponed as a last resort and conse-

quently the mortality reports are still very high. Almost all splenomegalies are associated with marked anemia and when the anemia that is produced by operation is superimposed upon the existing anemia one often has a serious condition with which to deal.

At present we may say that splenic surgery is done upon an empirical basis and not with a definite knowledge of the physiology of the spleen. Few, however, will dispute the beneficial results derived from splenectomy in such conditions as splenic anemia and early Banti's disease, but we are at a loss to know just how the benefit is brought about. From the rapid strides that are now being made in the domain of bio-chemistry, physiology and pathology, we may hope to have, in the near future, a more rational splenic surgery.

LITERATURE.

1. Krumbhaar, E. B.—History of Extirpation of Spleen. N. Y. Med. Jour., Feb. 6, 1915, CI, 232.
2. Blaud-Sutton—Lancet, 1897, 174.
3. Meyer, A. W.—The Supposed Experimental Production of Hemolymph Nodes and Accessory Spleens. Jour. of Exp. Zool., February, 1914, XVI, 241.
4. Vulpius, O.—Beitrage zur Chirurgie und Physiologie der Milz Bruns Beitrage z. Klin. Chir., 1894, XI, 633.
5. Zesas—Beitrage zur Blutveranderungen bei Entmilzten Menschen und Thieren. Arch. Klin. Chir., 1883, XXVIII.
6. Gibson, J. L.—The Blood-forming Organs and Blood Formation. Jour. Anat. and Physiol., 1885, XX, pp. 324, 456.
7. Morris, D. H.—Role of Spleen in Blood Formation. Jour. Exp. Med., October, 1914, XX, 379.
8. Malassez et Picard—Recherches sur le sang la rate Gazette Medicale de Paris, 1875, XLVI, pp. 138, 152, 176.
9. Paton, Gulland & Fowler — The Relationship of the Spleen to the Formation of the Blood Corpuscles. Jour. of Physiol., 1902, XXVIII, 81.
10. Barling, G. — Splenectomy for Enlarged Spleen with Anemia. Lancet, January 30, 1915, CLXXXVIII, 220.
11. Lewis and Margot—Function of Spleen in Experimental Infection of Albino Mice with Bacillus Tuberculosis.
12. Finkelstein, B. K.—Surgery of the Spleen. Brit. Jour. Surg., July, 1914. II, 68.
13. King, J. H.—Studies in the Pathology of the Spleen. Arch. Int. Med., August, 1914, XIV, 145.

Non-Surgical Tetany in Adults; With Reports of a Case.

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Tetany is the term applied to that clinical syndrome characterized by paroxysms of painful tonic cramps of the flexor muscles of the extremities, involving at times the muscles of the chest and face with increased mechanical and electrical irritability of the nerves.

Chronic idiopathic or non-surgical tetany is a condition rarely met with in this country, consequently the American physicians have had but very limited opportunity to observe its clinical manifestations.

Many theories have been advanced to account for its etiology and pathogenesis, but as yet very little is definitely known, except that the clinical picture of idiopathic tetany so closely resembles the clinical picture following partial destruction or extirpation of the parathyroids, that it must be due to some disturbed function or diseased condition of the parathyroid bodies.

Our knowledge of the parathyroids dates back only three decades. The Swedish anatomist Sandstrom was the first to give a specific description of them in 1880 and he found only one pair of glands and believed they were embryonic thyroid tissue in various stages of development. In 1891 Gley, following a series of experiments, concluded that the function of these glands was to supplement that of the thyroids.

Prenant in 1894, Kohn in 1895 and Moussu in 1897 indicated that the parathyroids and the thyroids were independent in character and had separate and distinct functions.

Vassale and Generali in 1896 showed conclusively the causal relation between extirpation of the parathyroids and the symptoms of tetany. They also showed that the severity of the symptoms were in proportion to the amount of parathyroid tissue removed.

The prevailing view concerning the function of the parathyroid is that they secrete and yield to the circulation some substance necessary for maintaining normal metabolism, and that this secretion is capable of preventing the formation of neutralizing or destroying spasmogenic poisons of endogenous or exogenous origin. Numerous experiments have been made to determine the nature of this unknown substance.

In the Department of Pathology at Columbia University, MacCallum and his collaborators have made experimental investigations by removing from normal blood a large part of its calcium which when perfused through an isolated extremity would produce an extreme hyperexcitability of the nerve simulating that of tetany. The blood of parathyroidectomized animals was replaced by normal blood which relieved the tetany and lowered the nervous excitability, whereas the dialyzed blood low in calcium content was injected without any improvement of the symptoms.

Rosenfeld of Berlin reports a case of tetany in a man, age 34, which in his judgment was due to highly concentrated

blood resulting from excessive vomiting on account of a cicatricial stenosis of the pylorus. He states that the symptoms subsided each time the loss of fluid was made up and that all disturbances ceased after gastro-enterostomy.

A number of observers have noted that alkalies have increased the severity of the symptoms of tetany and that they have diminished when a condition of acidosis had developed by prolonged fasting.

Along this line of investigation Wilson, Sterns and Janney, at Johns Hopkins, found that the introduction of acids into animals relieved parathyroid tetany for a longer period than any other agents tried and therefore assumed that the symptoms of tetany are an expression of an alkalosis.

The following case came under my observation February 26, 1916:

C. M., male, age 40, American; occupation, catalog man, wholesale hardware; married, one child healthy. Both parents living, in good health; one sister died at age 30 of tuberculosis. One brother and three sisters living, all in good health. Had measles, mumps, whooping cough and pneumonia during childhood. Present illness began when twelve years of age. For twenty-eight years he has had paroxysms of painful cramps, lasting from one to three days, with intervals of from three to eighteen months. During past year they have been very much worse. Not over two weeks have passed without some symptoms of the disease, attacks lasting as long as two weeks. Preceding the cramps from one to three or four hours, patient has a tingling sensation. Cramps begin in his forearms and hands, causing flexion at the wrists and at the carpo-phalangeal joints, fingers remaining straight, but drawn together with thumbs in the palms of the hands, so that hands appear cone-shaped. The color of his hands somewhat purplish and the veins distended. Parts involved hypersensitive to touch. Face dusky and somewhat expressionless.

During some attacks he has a general pruritus. Vision somewhat disturbed. Difficulty in getting objects properly focused. Slight edema about eyelids. These painful cramps sometimes involve the flexor muscles below his knees and his feet and the facial muscles. Only twice have the muscles of his chest and waist been involved. Cramps usually worse in the evening and about two o'clock in the morning.

Patient has a rigid gait during and between attacks, and descends stairway with some difficulty. When suddenly arising he at times has a transient blindness.

Examination: Eyes, pupils equal and of normal size. Response to accommodation slow. Response to light, normal. Distant vision 4/10, which was corrected by glasses. Nose, throat and mouth negative. Ears negative. Neck negative. Chest: lungs negative, heart sounds normal but very feeble. Pulse rate 75, normal rhythm but very weak. Blood pressure, systolic 100, diastolic 80. Temperature varied, very little below and above normal. Abdominal examination negative. Stomach apparently normal in size, although no picture was taken to determine this. Reflexes deep and superficial variable. Urine analysis showed the presence of indican and acidity slightly above normal. No sugar or albumen. Wassermann negative.

Treatment: Bromides to control the painful cramps. Digitalis for his circulation. Calomel and salines. Thyroid Ext. was given for about two weeks with slight improvement, after which parathyroid glands P. D. gr. 1/10 was given. He is now taking parathyroid ½ gr. and calcium lactate 25 grs. daily. He has not had any cramps for about a month and is improving in health generally. It is too soon to judge whether or not this line of treatment will give this patient a longer period of relief than any other line of treatment he has had.

BIBLIOGRAPHY.

Osler's Modern Med., 1909.
Sajous Internal Secretion and Principles of Med., 1916.
Journal A. M. A., September 18, 1915, p. 1035.
Journal A. M. A., January 30, 1915, p. 441.
Journal A. M. A., February 6, 1915, p. 547.
Journal A. M. A., November 13, 1915, p. 1754.

Pneumonia in Children

F. W. WHITE, M.D., Emporia, Kansas.

Read before the Kansas Medical Society, at Topeka, Kan., May 3-5, 1916.

In surveying the field of subjects which should bring out an informing discussion and one about which none of us can claim to know as much as we would like, Pneumonia in Children seemed to be one that fulfilled these conditions.

The pneumonias of children after the age of two years are mostly of the lobar type and it is to this variety that we shall give our attention, bearing in mind that the treatment for lobar will in most cases be almost identical with that for bronchopneumonia.

An acute infectious disease, in children almost always due to the pneumococcus. Cold in the sense of exposure and reduc-

tion of body resistance is admitted to be closely associated with pneumonia. Any slight cold, bronchitis, or influenza may be the predisposing cause. It is worthy of note that January, the coldest month in Montreal, but usually a steady cold, has commonly a comparatively low death rate.

Holt tells us that up to the sixth year the predisposition to pneumonia is marked. It diminishes to the fifteenth year, but then for each subsequent decade it increases; first year has 15 per cent, second year to sixth 62 per cent, seventh year to eleventh year 21 per cent, twelfth to fourteenth year 2 per cent. It is the most widespread and fatal of all acute diseases, particularly in the cities, and if we take Stevens' figures of the mortality as 20 per cent we realize that we are not combating it as successfully as we could wish.

The detailed pathology I shall skip lightly over, it being familiar to us all and the purpose of this paper being mainly to go into the symptoms and treatment.

DIAGNOSIS: The diagnosis is usually easy, but we should bear in mind that there are two conditions which may be confusing. I refer to meningitis and empyema. The last is easily eliminated by the aspirating needle. The former is not so easily disposed of. I saw a case in a girl of ten years this winter in which there was pronounced stiffness of the neck, complaining of pain in neck, headache, sensitiveness to touch on muscles and over spine, which combined with the fact that there was no sputum or color to saliva, caused a question to say the least. In this particular case this stiffness gradually passed away during third and fourth days, while respiratory symptoms and high temperature continued.

INFECTION: The infectious nature of pneumonia was recognized long before the germ was isolated. I need only to mention two or three illustrations to prove this. Rodman reports in a prison of 735 inmates that there occurred 118 cases with a mortality of 21 per cent. Direct contagion is suggested by the fact that a patient in the next bed to a pneumonia case may take the disease, or two or three cases may follow in rapid succession in a hospital ward. It is exceptional, however, for nurses or doctors to be attacked.

SYMPTOMS: The disease comes on very rapidly, particularly in children, twenty-four hours often showing the patient of eight or twelve years already at 104-5 temperature, 140-165 pulse, and the respiration 35 and upwards. Kerley reports a case of central type in which no consolidation could be demonstrated up to the seventh day when the crisis intervened.

It is well recognized that the size of the lung area affected is no criterion as to the severity of the symptoms, a small apex pneumonia often showing great prostration and toxic symptoms while much larger areas find another child resting quite comfortably and not complaining of great inconvenience. So we recognize a difference of virulence as the important consideration often.

In children the onset is usually sudden with a chill and shivering, often accompanied by convulsions or semi-convulsive movements and occasionally slight delirium which disappears after a few hours only to return if the case takes a turn for the worse.

The face is flushed, the temperature high, the pulse of medium strength or weak according to the resistance of the child. Wiry, active children with little adipose, even if not very strong, often do better than the plump, healthy, rosy-cheeked child. The respirations are not so apt to give the typical picture of one-three ratio as in the adult. In another case seen this winter a child three years old showed respirations of 30, pulse 120-30. A girl of ten showed never more than 46 to a pulse of 167-170 and usually lower, say 32-40.

Depending on the severity of the attack the lips will be bluish, particularly in threatened collapse, and you will have to watch for this more carefully in children and be ready to combat it. There is usually herpes on the lips and retention of urine early in the attack and anxious facies.

The child complains of pains in affected side and is restless, perhaps wants to throw off clothes or get up, etc. In children pneumonia is where "all signs fail" or are apt to. Instead of a short, dry, painful cough there may be none at all or not painful in the least. The respirations are less likely to be irregular than in adults, and often accompanied by a short expiratory grunt, and the nostrils dilate at each inspiration. The expectoration is blood tinged after second or third day with tenacious sputum, but do not be surprised if there is no color of blood or hardly any sputum to diagnose. The pulse is full, but this is a relative term, as the characteristic pulse has not usually been observed under normal conditions so the quality can not usually be gauged against

the normal pulse. It would be classed as a weak, rather flexible pulse, I should say, in most cases unless artificially responding to stimulus. The examination of the lungs shows physical signs of consolidation, blowing breathing and fine rales. The shortness of breath may be accounted for in several ways, as, for example: pain, toxemia, fever, reduced lung area. After crisis the cough if present becomes easier and the expectoration more easily gotten up through the throat. A marked amount of blood from the lungs may be the initial symptom as may also vomiting in children.

The child usually rests more comfortably on the involved side. Depression of the intercostal spaces is quite common with lack of expansion on the affected side and diminished motion. Increased tactile fremitus but *decreased* if bronchi are full of exudate. In consolidation the percussion note is duller of course, while in engorgement the note may be higher pitched.

AUSCULTATION: Very early the fine crepitant rales appear at the end of expiration on deep breath, not so easy to get in children for they will not do what perhaps pains them. In consolidation the respiration of course is tubular. As resolution begins, all pitches of rales begin to be heard. Accentuation of the second pulmonic indicates weakening of the circulation and is important to watch. In children symptoms of collapse often develop on the second to fourth day and will require prompt action. This once combated and safely by and they seem to recover with as great frequency as if it had not occurred. Heart weakness may be due to the paralysis of the vaso motor center due to toxemia and the clammy perspiration, cold hands and feet usually indicate this condition which is always to be considered a grave condition.

In cases where the white count is taken it has been noted many times that low white counts are almost always fatal.

The tongue is furred and in severe toxemia, dry. The appetite is poor and should not be forced. The spleen is usually enlarged but in low white counts this is not so marked. The urine is the usual fever urine, at first with increased uric acid and urea with a slight trace of albumen being common. Pleurisy is the common ending rather than complication. While empyemas (possibly due to the increase of influenza) is said to be increasing as a complication.

Osler says of his fatal cases in Montreal, 8 per cent had meningitis for a complication. Crisis delayed beyond the ninth day means a very grave prognosis. Relapse or delayed resolution, whichever you choose to call it, is common but does not change the successful outcome of the cases as a rule. Eventually they go on to successful recovery.

Recurrence is more common with this disease than any other. Rush gives an instance of twenty-eight attacks. Eight or ten attacks have often been reported.

PROPHYLAXIS: Pneumonia sputum should be carefully handled and houses where several cases have occurred should be thoroughly fumigated.

TREATMENT: Here we have everything from "A" to "Izzard" suggested. Care should be taken not to do too much and children especially may be damaged by too promiscuous drugging! Cases have even been known to get well without a particle of treatment. There is no royal road to follow and one must treat the symptoms as they arise and with an eye to what these symptoms mean and their relative bearing on the strength of the patient and the successful termination of the case.

At our present state of knowledge the serum in injections of 20 c.c. repeated at least five times is good treatment although the pain at the point of injection is often the cause of restlessness in children. This is absorbed, however, in from three to five hours. On the whole perhaps the bacterium is preferable. Smaller injections A, B, C and D. Usually this treatment is followed by slight general improvement but does not hasten the crisis. Perhaps its effect is to lessen toxemia.

For the intestines a standing order for an enema should be given for a patient who does not have a movement of the bowels during twenty-four hours. Divided doses of calomen (5 or 6 one-sixths) usually suffices. Mustard plaster 1 to 2 (flour) is useful for pain and also in weak subjects hastens slow resolution. If skin does not redden, put more mustard in the mixture.

In extreme prostration, colon flushing will give excellent results but should not be done oftener than six to eight hours, as rectum often becomes irritated.

GENERAL MANAGEMENT: Cotton jacket straps over shoulder. Rub chest, back and front, with camphorated oil or olive oil. Camphor with addition of salicylic acid to favor absorption is of doubtful value. For delayed resolution or to favor resolution, Antiphogistine as hot as patient can stand under cotton jacket five or six hours apart

is worth trying, and often gets immediate inititation of resolution. Room well ventilated and not over 70, preferably 65. Keep out visitors and excitement. For the pain in the side or the painful cough, Morphine 1-12 or codein can be injected or hot application, but favor the first mentioned as it also stimulates the heart slightly and raises arterial tension. For the temperature, sponging and ice bag.

MISCELLANEOUS.

Chronic Duodenal Indigestion in Children

This condition is said to occur most frequently in children after the first year, and especially in those who have suffered from dietetic errors, usually with antecedent contagious diseases, or from prolonged intestinal infections, and this is fully covered by Foote in the December International Clinics. This form of indigestion seems to be accompanied by deficiency or pancreatic ferments, especially lipase. A mild duodenitis, which either passes up the pancreatic duct, or diminished harmone formation, seems responsible for the condition. Diminished bile production may also be a factor. Anemia, loss of weight and mental underdevelopment occur. Large pendulous abdomen are common. Bottle feeding has been employed. Fever may be encountered, vomiting almost never. The number of daily stools varies from three to twelve. They are thin, contain some mucus and flakes of whitish material and have a very foul odor. They give an acid reaction and microscopically contain not only large quantities of fat soaps, but also a considerable amount of neutral fat, but rarely starch granules. It is to be differentiated from mesenteric tuberculosis and acute duodenal indigestion. The treatment consists in reducing the food elements which have proven indigestible, namely, the fat, and stimulating enzyme production by the administration of hydrochloric acid and pancreatic ferments.

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A Clinical Consideration of Migraine

Migraine is considered by the author as the most frequent headache, occurring in 700 of his 15,000 patients sick from all causes. He believes that the so-called acidosis in children may often be a forerunner of a well established sick headache habit. The interesting relation between migraine and epilepsy deserve further study. Among the author's 15,000 patients epilepsy occurred in seven, and both migraine and epilepsy in seventy. Auerbach's theory which attributes migraine to an actual disproportion between skull-capacity and volume of brain, needs further proof. In the International Clinics for December Dr. Litchy shows that the diagnosis is easy when there are headaches which are unilateral, periodical and hereditary, but when only one or two of these symptoms are present, or when there is only a periodicity of some of the minor symptoms or possibly of the aurae, the diagnosis may be difficult. Migraine is frequently mistaken for pelvic disease, for acidosis or cyclical vomiting in children, and organic disease, when some of the aurae are present. The psychasthenic and the gastric symptoms frequently lead to confusion in diagnosis. While the underlying causes of migraine are vague and furnish little light as to treatment, much can be done to ameliorate the symptoms by proper handling of the exciting causes that aggravate the patient's general condition and precipitate the attacks. Most thorough investigation and careful individualization are indicated. Systematic administration of the bromide salts and avoidance of undue fatigue are especially recommended.

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Sterility

The following are the conclusions of a paper by V. D. Lespinasse, Chicago (Journal A. M. A., Feb. 3, 1917), written with special reference to weak or impaired spermatozoa and the general diagnosis and treatment of the condition: "Many cases of sterility attributed to the women are due to weak spermatozoa. This type of case can be diagnosed by careful examination of the semen, as has been described in the foregoing. The cause of sterility is as often in the male as in the female, if not oftener. Treatment depends entirely on the cause. Obstructive cases, male or female, are operative. Weak sperm cases would indicate direct uterine insemination and glandular therapy, diet, modes of life, etc. Secretion cases necessitate appropriate therapy to check or modify the destructive secretions. Nonproduction of the essential elements, namely, spermatozoa or ova, would indicate glandular therapy."

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The Salina Meeting

The annual meeting will be held in Salina on the second, third and fourth of May. The first meeting will be held on Wednesday morning, May 2. Trains arrive from the east at 7:30 A.M., trains from the west arrive at 9:30 and 11 A.M. Trains coming from the north and south make connections at various points with westbound trains on the Rock Island, Santa Fe, Union Pacific and Missouri Pacific. The train from Wichita over the Missouri Pacific arrives at 9:30 P.M. Returning from the meeting, trains going east can be taken from 9 in the morning until 3:30 in the afternoon; going west all trains leave from 4:30 until 6. The Wichita train leaves at 6:15 A.M.

Ample provision will be made for the care of automobiles, as many will prefer to make the trip by auto. Hotel accommodations are excellent, but if necessary provision will be made for rooms outside of hotels.

The meeting will be held in Convention Hall, which will give plenty of room for exhibits, committee meetings and a lodge room for the meeting of the House of Delegates.

Arrangements are now being made for several addresses by several men of national reputation on Thursday.

Sources of Infection in Systemic Diseases

While the etiologic relation of certain focal infections to various systemic diseases is sufficiently well established to justify their full consideration in any plan for the treatment of the latter, too much confidence in the beneficial effects of the removal of the tonsils, or the teeth, or the opening and draining of sinuses, should be avoided.

Although for many years the relation between diseased tonsils and rheumatoid arthritis has been suspected, positive evidence of such relationship has only recently been demonstrated. In a lecture delivered before the Shawnee County Medical Society, Dr. Philip Kreuscher, of Chicago, presented some statistics made up from a series of over eight hundred cases of arthritis. In twenty-five per cent of these the source of infection was fairly well determined to be the tonsils. In these cases there was either a definite history of tonsillitis or clinical evidences of infection in these organs. In the same group of cases the teeth were shown to be the sources of infection in eighteen per cent, the urethra in seventeen per cent, and the sinuses in seventeen per cent. Sixty per cent of the cases, then, were found to have their sources of infection in the tonsils, teeth or sinuses.

In a very large number of people evidences of infection of the tonsils or teeth or sinuses, or all of them, will be found, but in only about two per cent of them does metastasis occur. Dr. Kreuscher concludes from his observations and experiments that, except in cases of pure streptococcic infection, metastasis does not occur from these old focal infections where one or more micro-organisms are found, unless a new infection by another micro-organism occurs. This explains the frequent occurrence of metastasis in cases of influenza and after operations upon old infected sinuses, or following the removal of infected teeth. Dr. Kreuscher reported a case of rheumatoid arthritis following an operation upon an infected frontal

sinus. A chill and a high temperature marked the occurrence of metastasis within thirteen hours and an arthritis of the elbow was well developed in twenty-two hours. The same micro-organisms were found in the arthritic joint, in the blood and the wound at the site of the sinus operation. Similar cases have been reported by other men, in fact, these reports are accumulating with rather alarming rapidity, since the sinuses have been recognized as particeps criminis in so large a number of systemic diseases.

After a metastasis has occurred and one or more joints, or the endocardium, or pericardium, has become involved, it is hardly reasonable to believe that the removal of the original source of infection will be sufficient, for other foci of infection will most likely have been established.

In the Bulletin of the Johns Hopkins Hospital, January, 1917, Crowe, Watkins and Rothholz report the results of their investigations and experiments to determine the relation of tonsillar and nasopharyngeal infections to various general diseases. They had followed up, after operation, nine cases of rheumatoid arthritis in which there seemed to be no doubt that the tonsils were the sources of infection, and in which the operations for the removal of the tonsils had been most carefully done. Only two of these cases are improved, two have shown no improvement, while five of the nine cases are much worse.

The opinion has been quite universal that diseased tonsils should be removed, even when there is no evidence of metastasis, on the ground that such diseased structures must always be a menace to health. It has naturally seemed more important that they should be removed when evidences of systemic infection do exist. There is yet no reason to question the wisdom of removing these diseased organs, but we must be more considerate of the possibility of promoting metastasis, and we must not be too confident of relieving the conditions due to metastasis when they exist. While in cases of rheumatoid arthritis it may be advisable to remove the source of infection, other treatment must be carefully sarried out.

Who Wants It?

We are beginning to wonder who wants compulsory sickness insurance. It is certain that a very large per cent of practicing physicians are opposed to it, and, from literature now being sent out, it appears that neither organized labor nor employers are very keen for it. A letter signed by Warren S. Stone, Chairman, Social Insurance Department of The National Civic Federation, also Grand Chief International Brotherhood of Locomotive Engineers, states: "In view of the fact that bills upon compulsory health insurance (sickness insurance) have been introduced in a number of our state legislatures this year, we desire to call to your attention the attitude of organized labor and employers with reference to the proposed legislation. Those who have become acquainted with the provisions of such bills have expressed themselves as being unanimously opposed to the enactment of laws of that character, whether Federal or State. Since such legislation primarily concerns the two elements of wage earners and employers, we believe that their views should be brought to the attention of legislators."

Accompanying this letter is a copy of a resolution being sent out by the Social Insurance Department of the National Civic Federation, which reads as follows:

"Whereas, a nation-wide propaganda is at present being carried on in favor of compulsory health insurance by the several states and the Federal Government; and

"Whereas, the project is made to rest largely upon mere assertions and broad allegations regarding the unsatisfactory economic and health conditions of the country, which assertions and allegations are false and seriously misleading in essential matters of vital concern to all wage earners and the nation at large; and

"Whereas, in support of this propaganda it is asserted and alleged that the social and sanitary progress of Germany and other European countries which have

adopted compulsory health insurance has been far in advance of the corresponding progress of the United States, which is wholly false and seriously misleading, since, as a matter of fact, more pronounced progress in these directions has been made in the United States during the last quarter century, and the social and physical condition of American wage earners is unquestionably superior to that of the corresponding labor element of European nations, as best indicated by the recent announcement of the United States Census Office that during the year 1915 our general death rate was the lowest on record, which may safely be accepted as the equivalent of a minimum rate of serious sickness prevailing among our wage earners at the present time; and

"Whereas, such a system of compulsory health insurance would impose needless economic and other burdens and duties upon employers, employes and the general tax-paying public; bring about an entirely unnecessary enlargement of the police powers of the states; establish new and inquisitorial health functions to the serious disadvantage of the future progress of preventive medicine and the practice of medicine as a healing art; and

"Whereas, the evidence is thoroughly convincing that a compulsory health insurance system is entirely unnecessary as a health measure because of the favorable health conditions prevailing throughout the country, as best reflected in the fact that during 1916 the death rate of the City of New York was the lowest on record, and that during the last twenty years there has been an average reduction in the New York City death rate of 40 per cent, against a reduction of only 28 per cent in the death rate of the City of Berlin; and a reduction of 44 per cent in the death rate from pulmonary tuberculosis of the City of New York, against a reduction of only 37 per cent for the City of Berlin; and

"Whereas, voluntary agencies serving social insurance purposes, such as sick benefit funds of trade unions, or establishment benefit funds, or fraternal insurance societies, or group insurance, or other related forms of voluntary thrift, offer adequate facilities for further development in the future; and

"Whereas, compulsory health insurance is strongly opposed by organized labor, which rightfully considers such a measure to be a menace to its economic interests and a needless interference with its personal freedom;

"Resolved, that the Social Insurance Department of the National Civic Federation, composed of representatives of organized labor, organized industry and the interests of the general public, emphatically declare itself opposed to the contemplated legislation with reference to compulsory health insurance, as inimical to the best interests, present and future, of the workers of the nation."

Those who stand on the outside and look in may be more competent to judge of the needs of those in the field of labor, but it may be difficult to persuade the poor laboring man that his individual rights are not being encroached upon by this proposed legislation. One can see nothing of advantage to the medical profession in any of the proposed plans for sickness insurance, but, convinced of the futility of any opposition, physicians have begun to school themselves for a passive tolerance of conditions they are unable to prevent. If, however, organized labor is opposed to such legislation, it is not likely that much will come from the present agitation.

———R———

Mortality from Cancer

The report of the Census Bureau shows that the mortality from cancer and other malignant tumors in the registration area of the United States has been increasing almost continuously for the past fifteen years. It shows that this mortality is greater in urban than in rural communities; among females than among males; among whites than among negroes; and in persons in middle life and old age than among those in early life. Deaths due to cancer of the stomach and liver represent more than three-eighths of the total. In 1914 the deaths from cancer and other malignant tumors in the registration area numbered 52,420, which is a death rate of 79.4 per 100,000 of population. The death rate from cancer of the stomach was 19.3 per 100,000, from cancer of the uterus it was 11.3 and from cancer of the breast it was 8.2.

Thermal Penetration

The high frequency current, applied by the direct d'Arsonval method, is particularly effective in producing hyperemia in deep structures. The tissues through which the current passes between the two electrodes are heated relative to the toleration of the skin. The temperature at all points between the two surfaces of contact is practically the same; the toleration of the skin measuring the degree of heat that can be conveyed into the intervening tissues. A temperature of 110 F. is practically the limit of toleration of the skin and consequently of the intervening tissues. The fixed cells becoming heated to this temperature will require considerable length of time, running into hours, to entirely eliminate the accumulated heat, and during this period the hyperemia will persist. For this reason the thermal penetration method of treating deep structures, as parts of the body, or joints, render it possible to improve metabolism with an increased phagocytosis in tissues so exposed.

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Anaphylaxis and Eclampsia

Simonton (N. Y. Med. Rec. Feb. 4) suggests the probability of anaphylaxis being the principal factor in eclampsia. During pregnancy the mother must be protected against toxins formed in the breaking down of embryonic cells during the metamorphosis of the growing fetus. The alexins may afford partial protection but the mother forms an antibody to the excretory products. If she fails to form such antibodies, eclampsia results. The evidence of the unopposed excretory products in her blood will be in the ammonia coefficient and urea in her urine. If this theory is correct there should be a negative result in the Abderhalden test for pregnancy in cases of eclampsia.

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Hyperthyroidism and Carbohydrate Tolerance

The probable relation of the thyroid secretion to carbohydrate tolerance is receiving some consideration. The occasional occurrence of glycosuria in goiter patients and their fatal termination in coma may or may not point to the hyperthyroidism as a factor in diminishing the tolerance to carbohydrates. O'Day (N. Y. Med. Rec. Feb. 24) reports two cases of diabetes in which there were no symptoms of Graves' disease, but in which a sub-total thyroidectomy was wone. The glycosuria disappeared and the carbohydrate tolerance gradually increased, but after several months the old symptoms returned and the patients died. In four cases of diabetes associated with Graves' disease which had been treated by destruction of the thyroid, a cure had resulted.

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A New Catalogue

We have just received a copy of a catalogue of hospital furniture issued by the Frank S. Betz Company. It contains beautiful cuts and descriptions of everything in the way of equipment for large or small hospitals. A copy will be mailed on request.

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Et-cet-er-a

BY THE PRODIGAL.

Since transplanting the organs of the body from one person to another has become so fashionable and common, the following sign will soon be displayed in big letters of golden sheen in front of Dr. Fake Quack's office: "Beautiful New Eyes, Kidneys and Prostates Furnished and Placed While You Wait."

Another step forward—a two-step—is preventive surgery.

Some California physicians and professors are getting a juice or serum from the liver that cures cancer—suspect it is gall.

The Prodigal would like to know in what cases and to what extent bandages should be left off in the healing. He would also like to know if it has been satisfactorily demonstrated that there is a harmless X-ray.

To get the most out of your vacation devote it to something you really want to do. Rest, at its best, is unfretted, unhur-

ried occupation of mind and body in pastimes remote from work-a-day life.—Martin.

The ideal intestinal antiseptic is charcoal. It is claimed that charcoal destroys the germs of typhus fever and cholera.

In operations on the turbinates or septum use tampons only when necessary to keep the parts in position.

How often do our patients appear to be proud of their illness instead of being proud that they got well.

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In Memoriam—Dr. M. C. Porter.

By the Shawnee County Medical Society, February 12, 1917.

Dr. M. C. Porter, a member of the Shawnee County Medical Society and a former president, died at Topeka, Kansas, January 29, 1917.

It has seemed fitting that some memorial of the high regard in which Dr. Porter was held by his fellows be spread upon the society's records and a copy of the same sent to the bereaved family.

Dr. Porter was a very highly esteemed member of the medical profession, not only locally, but throughout the state. He had the confidence of his colleagues and the respect of a very wide circle of acquaintances and friends outside of the profession as well. While he possessed a native dignity and reserve, he was yet a most companionable man and loved the society of men of congenital tastes and pursuits. He was therefore a strong supporter of medical organizations and could always be depended on to give of his time and best efforts to any of the society activities. He attended the various medical society meetings at home and throughout the state with more than average fidelity, and would on occasion take able part in the programs and discussions. Yet he was quiet and unassuming, and shrank from anything suggestive of self-exploitation, preferring to extend the sphere of his professional activities by the deeper and more lasting impressions that come with intimate mutual acquaintance and friendship.

He had qualities, not only of the head but of the heart, which endeared him to those who knew him well. He was sympathetic in his disposition, yet his sympathy did not bias his judgment or cause his hand to falter.

He was intensely honest in thought and expression. He never flattered. Hence his commendation was more highly valued when bestowed. Nor was he afraid to criticise or even denounce if occasion seemed to warrant, for he was absolutely fearless both physically and morally.

He was not in the profession for financial gain. He expected and received just fees from those who were able to pay, but he always insisted that a man who practiced medicine merely for money would better have taken up some other vocation. His professional brothers could always receive his aid and counsel in any case and at any time, unconditioned by any financial consideration.

Although his friends and associates had noted with anxiety his failing health, his untimely death, at the very height of a most successful and useful career, came to all as a profound shock.

In the death of Dr. Porter the Shawnee County Medical Society has lost a most valuable and beloved member; the medical profession locally and at large a faithful friend and worthy colleague; and the community and state an exemplary citizen.

O. P. Davis
W. L. Warriner
W. S. Lindsay
Committee.

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Death of Dr. Billingslea

Dr. M. T. Billingslea of Altoona was found dead in his apartments at Altoona, Tuesdaya, Feb. 27th, the coroner deciding that death had come some twenty-four hours previously from heart disease.

Dr. Billingslea was forty-four years old and was never married. His closest relative was a sister, who lives in Oklahoma City and who was present at the funeral.

Dr. Billingslea was an active member of our County Medical Society, a member of the Kansas State Medical Society and the American Medical Assaciation. He was a graduate of the Dearborn Medical College of Chicago; also the College of Physicians and Surgeons of Chicago.

He located in Altoona some eight years ago and enjoyed a very large practice in Altoona and vicinity. He was universally liked, was skilled in his profession, kind and affable. His death leaves a vacancy in this Community that will be very hard, indeed, to fill.

The Secretary of the County Medical Society learned by telephone of the arrangements for the funeral, which was held at the Presbyterian Church at Altoona, Thursday, March 1st, and suc-

ceeded in notifying the neighboring physicians. There were fifteen physicians in attendance at the funeral.

E. C. DUNCAN, Secretary

———R———

Dr. C. F. Menninger of Topeka has recently been appointed a member of the State Board of Examination and Registration, to fill the vacancy caused by the death of Dr. L. A. Ryder. Every member of this board is now a member of the Kansas Medical Society.

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The members of the State Board of Examinations and Registration, as it now stands, are as follows: Dr. A. J. Anderson, Lawrence; Dr. C. F. Menninger, Topeka; Dr. A. S. Ross, Sabetha; Dr. G. R. Dean, McPherson; Dr. George M. Gray, Kansas City; Dr. C. W. Jones, Olathe; Dr. Henry A. Dykes, Lebanon, secretary.

———R———

Medical Care Under Health Insurance

Explained in New Pamphlet by New York Physician.

How physicians, hospitals, and medical science will be brought more effectively to the service of the sick workers under universal health insurance is explained in a pamphlet just published on "Medical Organization Under Health Insurance" by Dr. Alexander Lambert, New York, chairman of the Social Insurance Committee of the American Medical Association.

The full co-operation of physicians and public health officials all along the line, Dr. Lambert points out, is provided in the standard bill for health insurance prepared by the American Association for Labor Legislation and now before the legislatures of several states.

"In any large health insurance scheme," says Dr. Lambert, "a huge and intricate machinery is necessary and physicians are an essential part of this machinery. The service rendered by the medical profession must be on a business and not a charity basis. Sickness is an economic calamity for which the members of the community are responsible in varying degrees, and for which the whole community pays. The greatest economic asset that a workman possesses is the health that enables him to go to work each day. If he loses that, he loses his power of earning his living."

The pamphlet covers thoroughly every aspect of the proposed system involving the medical provisions, with charts to illustrate the organization of medical care. The writer invites comment and criticism that will be helpful in working out the plan in each state in justice to employers, employes, and physicians.

———R———

National Board of Medical Examiners

The second examination to be given by the National Board of Medical Examiners will be held in Washington, D. C., June 13, 1917. The examination will last about one week.

The following states will recognize the certificate of the National Board: Colorado, Delaware, Idaho, Iowa, Kentucky, Maryland, North Carolina, New Hampshire, North Dakota and Pennesylvania. Favorable legislation is now pending in twelve of the remaining states.

A successful applicant may enter the Reserve Corps of either the Army or Navy without further professional examination, if their examination papers are satisfactory to a Board of Examiners of these Services.

The certificate of the National Board will be accepted as qualification for admittance into the Graduate School of the University of Minnesota, including the Mayo Foundation.

Application blanks and further information may be obtained from the Secretary, Dr. J. S. Rodman, 2106 Walnut St., Philadelphia.

SOCIETY NOTES

STAFFORD COUNTY SOCIETY.

The Society met in Stafford Wednesday, February 14, at 3 P. M. Dr. Odus Liston of Hudson was made a member of the society and two Stafford dentists, Drs. Newell and Pankratz, were made honorary members.

The meeting was devoted to case reports and every member present participated. The cases reported and discussed were as follows:

W. L. Butler, operation for strangulated hernia in a patient suffering from grave kidney and cardiac lesions. J. J. Tretbar, ringworm of face and neck spreading to back and scalp. O. Liston, injury to forearm of boy thrown from horse causing denudation of skin followed by pus discharge, retarded healing and pustules on other arm. M. M. Hart, asphyxia neonatorum persisting for several days with gradual improvement. Edna Wallace, periodic attacks of articular rheumatism in a girl ten years of age always preceded by acute tonsillitis. J. T. Scott, acute

iritis. L. C. Haines, abortion at fifth week complicated by use of pituitrin. J. H. Webb, pregnancy with no unusual manifestations save morning sickness until third month when uremic symptoms suddenly developed and death from an overwhelming toxemia.

J. T. SCOTT, Secretary.

MONTGOMERY COUNTY SOCIETY.

A meeting in the interest of public health was held under the auspices of the Montgomery County Medical Society on Friday, February 16, 1917, at the City Hall, Independence, Kansas. Speakers, Dr. J. E. Sawtell, Kansas City, Mo., "Hidden Dangers in Medicine"; Dr. C. C. Nesselrode, Kansas City, Mo., "What the Public Ought to Know About Cancer" (illustrated).

There was a good attendance and the speakers were greatly appreciated.

J. A. PINKSTON, Secretary.

LYON COUNTY SOCIETY.

The Lyon County Medical Society held its regular meeting on February 6, and, after the usual 7 o'clock dinner, Dr. R. L. Sutton, of Kansas City, held a clinic on skin diseases and afterward gave a lecture on Skin Carcinoma, illustrated with lantern slides.

F. FONCANNON, Secretary.

WYANDOTTE COUNTY SOCIETY.

The Wyandotte County Society held its regular meeting on February 20, at the Mercantile Club Rooms. A paper was presented by Dr. George Hobson on Gunshot Wounds, and a paper by Dr. W. H. King on Scarlet Fever.

BOURBON COUNTY SOCIETY.

The Bourbon County Medical Society met in regular session at the Library Building, Fort Scott, February 19, 1917, with fourteen members and four visitors present.

Dr. C. C. Dennie, of Kansas City, Mo., was present and presented a very instructive discussion on the early diagnosis and treatment of syphilis, demonstrating the same with lantern slides and photographs. The principal part of the doctor's discussion was confined to the primary stages of syphilis.

Dr. C. S. Kenny, superintendent of the State Tuberculosis Sanitorium, Norton, was present and gave a very interesting discourse on the early diagnosis of tuberculosis. The doctor also explained the workings of the State Sanitorium in every respect.

Papers were to have been presented by Drs. Payne and Miller of our own society, but were deferred until our next regular meeting. C. F. YOUNG, Secretary.

SHAWNEE COUNTY SOCIETY.

An adjourned meeting of the Shawnee County Society was held in the assembly room of the National Hotel, February 12. Dr. W. W. Duke, of Kansas City, favored the society with an illustrated lecture on "Dental Sepsis and Its Relation to Systemic Diseases." The members of the dental profession were invited to meet with the society and a large number were present.

At the regular monthly meeting of the Shawnee County Medical Society, March 5, 1917, Dr. Philip H. Kreuscher, of Chicago, an associate of the late Dr. John B. Murphy, read a paper on "Metastatic Joint Infections" with lantern slide demonstration. There was an unusually large attendance of the members of the County Society, and also a number of out-of-town doctors.

Meetings of the Shawnee County Medical Society are held the first Monday night of each month, and doctors finding it possible to be present are extended an invitation to do so.

E. G. BROWN, Secretary.

NORTHEAST KANSAS SOCIETY.

The Northeast Kansas Medical Society met in Leavenworth on March 1. The program as announced in the February number of the Journal was presented.

The annual election of officers resulted in the selection of the following: Dr. H. L. Charles, Atchison, president; Dr. C. H. Koentz, Onaga, vice-president; Dr. J. L. Everhardy, Leavenworth, secretary. The next meeting will be held in Atchison, October 25.

MEDICAL SOCIETY OF THE MISSOURI VALLEY.

The meeting of the society at Keokuk, Iowa, March 22-23, promises to be of unusual interest, both in relation to its scientific program, as well as to the social features of the entertainment. All the members of the Tri-State Medical Society have been invited to attend and a number of them will take part in the program. The merger of the Tri-State Society with the Missouri Valley will be discussed and a large attendance is therefore anticipated.

The Hotel Iowa will be headquarters and reservations should be made early to avoid disappointment. The sessions will be held in the Masonic Temple, opposite the post office, and the exhibit hall will be located in the same building near the place of meeting. The arrangements are in charge of the Physicians' Club of Keokuk. Dr. F. B. Dorsey, Jr., chairman of the arrangement committee, announces a banquet at the Hotel Iowa for Thursday evening, after which the orations will be heard, followed by an entertainment. On Friday morning at 8 o'clock the members will be taken to the plant of the Mississippi Valley Power Company, which is one of the largest water power companies in the United States; similar to the plant which is located at Niagara Falls. On Friday afternoon, arrangements are being made for an open lay meeting, with moving pictures and a lecture on the prevention of tuberculosis.

A symposium on the "Exhaustion Psychoses" will be an interesting feature of the first day. Those taking part are Drs. Frank P. Norbury, H. Douglas Singer, Thomas B. Throckmorton, Albert H. Dollear, S. Grover Burnett, and others.

Dr. Jerome Morley Lynch of New York City will give an address, subject: "Cancer of the Rectum and Colon."

The feature of the second day will be a symposium on "Focal Infection," by Doctors D. B. Phemister, A. B. Leeds, W. H. Livermore and E. H. Skinner.—Medical Herald.

BOOKS

Diseases of the Skin.

A treatise on diseases of the skin. For the use of advanced students and practitioners. By Henry Stelwagon, M.D., Ph.D., Professor of Dermatology, Jefferson Medical College, Philadelphia. Eighth edition, thoroughly revised. Octavo of 1,309 pages, with 356 text-illustrations and 33 full-page colored and half-tone plates. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $6.50 net; half morocco, $8 net.

There are few subjects in medicine about which the last word can yet be written. No matter how carefully and thoroughly an author may have covered his ground, in a few months or a few years he finds it necessary to revise his work. Eight times, since 1902, this book of Stelwagon's has been revised, and in this last edition much new matter has been added and much of the old has been rewritten. Among the new articles will be found occupational dermatoses, parafinoma, purpura annularis telangiectodes, xanthoma elasticum, and ulerythema ophryogenes. About thirty-five new cuts have also been added.

The Practice of Gynecology.

A text-book on the practice of gynecology. For practitioners and students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in Graduate School of Medicine of the University of Pennsylvania. Sixth edition, thoroughly revised. Octavo of 1,097 pages with 1,052 original line drawings. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $6.50 net; half morocco, $8 net.

In preparing this work on gynecology the author has attempted to cover the field so completely that the student or practitioner would have no occasion to look elsewhere for information along this line. In the treatment of the various pathologic conditions described he has given prominence to those methods which in his opinion would best correct the difficulty. In operative procedures he describes that one which he has found to be most serviceable, noting only those modifications that may at times be advantageous.

Nothing has been spared in making the book complete, and more than a thousand illustrations are used to facilitate the explanations of the procedures employed.

To those who want an exhaustive treatise on gynecology we can recommend this work by Dr. Ashton. A book, however, which has already reached its sixth edition needs no such recommendations, it has already found its way into the hands of most of the men who are at all times interested in the subject. Since this edition is a complete revision, it will no doubt replace the older text on the shelves of the up-to-date practitioner.

Care of Patients.

Care of patients undergoing gynecological and abdominal procedures, before, during and after operation, by E. E. Montgomery, M.D., Professor of Gynecology in Jefferson Medical College, Philadelphia. 12-mo of 149 pages with 61 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $1.25 net.

The original purpose of the author of this book was to supply for his own assistants a chart of instructions for the preparations required for various operations. In this he included a list of instruments required for each operation, the kind of dressings, the preparation of the patient and operating room. In the further development of the work he has added a considerable amount of descriptive matter in regard to the operations themselves and the subsequent care of the patient.

It will be found of much value to both operator and assistant, giving in detail the technic of much of the work required of both.

A Manual of Nervous Diseases

By Irving J. Spear, M.D., Professor of Neurology at the University of Maryland, Baltimore. 12-mo of 660 pages with 169 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, $2.75 net.

The author expresses the opinion that the general impression among practitioners is that the study of nervous diseases is particularly difficult, and that this is a false impression due to lack of proper understanding of the anatomy and physiology of the nervous system and of the correct methods of examining nervous patients. He believes that this may be corrected by supplying a brief though sufficiently comprehensive description of these subjects. The work is thorough and complete, the text is clear and concise and is supplemented by many illustrations taken from clinical cases. It seems, after reading this book, that the author has said all that needed to be said in order to give the reader a clear conception of the subject.

Abnormal Myocardial Function.

The Diagnosis and Treatment of Abnormalities of Myocardial Function, with special reference to the use of graphic methods, by T. Stuart Hart, A.M.,M.D., Assistant Professor of Clinical Medicine in the College of Physicians and Surgeons, Columbia University. Visiting physician to the Presbyterian Hospital in the City of New York. Published by Rebman Company, New York. Price, $4.50.

A great deal of attention is now being given to disturbances of myocardial function, especially by those who are particularly interested in cardiac pathology. While much may be found in the current literature relative to the subject, few practitioners have access to a sufficient number of the various articles published to enable them to make a thorough study of the subject. This book is a timely one since it presents a comprehensive review of the facts which have been determined in relation to the myocarium and its functions. Special attention is given to the graphic aids to diagnosis. The various forms of myocardial functional derangement are illustrated with tracings from the polygram and the cardiogram.

Principles of Treatment of Broken Limbs.

An inquiry into the principles of treatment of broken limbs, a philosophical-surgical essay with surgical notes by William F. Fluhrer, M.D., Consulting Surgeon to Bellevue and Mount Sinai Hospitals. Published by Rebman Company, New York. Price $3.

Dr. Fluhrer has some ideas about the treatment of fractures which he has set out in this book. One of his objects seems to be to establish the superiority of his method of rapidly immobilizing broken bones by the use of perforated tin strips. His method of using these is fully described by text and illustrations. A suspension apparatus, invented by the author, is also described in detail.

In his argument for the superiority of his method and particularly in his argument against the open method of treating fractures the author is inclined to Spencerize, as in the following: "To sum up: A given fracture is a given definable category of conditions of the state of the injured organism. A given treatment of the fracture is a given definable category of distribution of conditions to which the given injury is exposed. The result of treatment is a given definable category of responses evoked from the injured organism consequent upon its exposure to the given category of distribution of conditions constituting the treatment. The criterion or measure of value of the results of treatment is the largest number of evoked responses, in practical realization of approach to the conceived ideal of maximum number of responses." In another chapter he says: "It is well to impress upon the mind, that in the formation of categories in which given incident conditions embodied in treatment are the subject of negative assertion, a single successful affirmative instance in the given category is logically destructive of the universality of distribution of the negative assertion essential to the validity of argument."

The Medical Clinics of Chicago.

Volume II, Number IV (January 1917). Octavo of 231 pages, 20 illustrations. Philadelphia and London: W. B. Saunders Company. 1917. Published bi-monthly. Price per year, paper, $8; cloth, $12.

In the January number of the Clinics will be found clinical reports and discussions on the following subjects: Splanchnoptosis by Dr. Charles Spencer Williams; Pericardiomediastinitis, Pulmonary Abscess, Rectal Stricture, Abdominal Aneurism, Amebic Dysentery, by Dr. Frederick Tice; Acidosis by Dr. Frank Wright; Achylia Gastrica by Dr. Walter W. Hamburger; Some Considerations of the Problems of Psychiatry, Acute Disseminating Myelitis and Acute Eyphilitic Meningomyelitis, by Dr. Ralph C. Hammil; Carcinoma of the Rectum by Dr. Milton Portis; The Diagnosis of Early Active Pulmonary Tuberculosis, by Dr. Solomon

Strouse; Gastric Ulcer, Duodenal Ulcer, Pyloric Stenosis and Cholelithiasis, by Dr. Charles L. Mix; Disease Resistance in Relation to Nutrition of Infants, Decomposition, by Dr. Isaac A. Abt; Radium Diagnosis by Dr. James T. Case; Purpura Hemorrhagica by Dr. Arthur F. Belfield.

The Practical Medicine Series.

Under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern Medical School. Price of this series, $10. The Year Book Publishers, 327 So. LaSalle St., Chicago.

Volume IX—Skin and Venereal Diseases.

Edited by Oliver S. Ormsby, M.D., Professor and Head of the Department of Skin and Venereal Diseases, Rush Medical College, and James Herbert Mitchell, M.D., Hyde Memorial Fund Fellow, Assistant in Cutaneous Pathology, Rush Medical College. Price $1.35.

Volume X—Nervous and Mental Diseases

Edited by Hugh T. Patrick, M.D., Professor of Neurology in the Chicago Polyclinic, Clinical Professor of Nervous Diseases in the Northwestern University Medical School; ex-President Chicago Neurological Society. Peter Bassoe, M.D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College; with the collaboration of Lewis J. Pollock, M.D. Price $1.35.

These are volumes of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete on the subject of which it treats for the year prior to its publication.

MISCELLANEOUS.

Propaganda for Reform

Glycerophosphate Comp. Ampuls, 1 Cc., Squibb.—The Council on Pharmacy and Chemistry refused recognition to Glycerophosphate Comp. Ampuls, 1 Cc. Squibb, each said to contain sodium glycerophosphate 0.1 gm., strychnin cacodylate 0.0005 gm., and iron cacodylate 0.01 gm., because the name did not indicate the potent ingredients and because the administration of a mixture of sodium glycerophosphate, strychnin cacodylate and iron cacodylate is irrational. In recognition of the Council's conclusion, Squibb & Sons state that the sale of the ampules has been discontinued. This co-operation in the work of the Council on Pharmacy and Chemistry is gratifying. (Jour. A. M. A., February 3, 1917, p. 388.)

Emetine in Dysentery and Pyorrhea.—Emetine is accepted today as an almost ideal specific against amebic dysentery. Experience indicates that by its use abscess of the liver can be prevented and even cured. When a differential diagnosis between amebic and bacillary dysentery cannot be made, emetine may be of diagnostic value because improvement follows from its use if the case is amebic. In neglected cases and some other forms of the disease the emetine treatment may fail of complete success. As a direct cure for pyorrhea emetine seems to have failed, not because it does not act on the ameba which are found in the pyorrheal pockets but because pyorrhea is not caused by ameba. (Jour. A. M. A., February 3, 1917, p. 374.)

The Phenolsulphonephthalein Test. — It has been assumed that excretion of less than 60 to 80 per cent of phenolsulphonephthalein in two hours is an indication of renal insufficiency. It has been found, however, that in certain experimental conditions phenosulphonephthalein may be destroyed in the body and therefore not appear in the urine although the kidneys function normally. If this condition is found to occur in clinical cases the interpretation of the tests may have to be limited to this: An excretion of 60 to 80 per cent, i.e., a positive result, within two hours after the injection of the phenolsulphonephthalein is evidence of satisfactory renal activity. (Jour. A. M. A., February 3, 1917, p. 379.)

The Willard Pyorrhea Treatment. — After defrauding the public of amounts estimated by the federal investigators at $75,000 a year by means of a fake cure for pyorrhea, F. W. Willard, M.D., D.D.S., has been denied the use of the United States mails. The business of the Willard concern, apparently owned by Oren Oneal, consisted of a mail-order plan of a so-called home treatment for pyorrhea or Riggs' disease. (Jour. A.M.A., February 10, 1917, p. 477.)

Sargol.—The case of the United States against Wylie B. Jones and H. E. Woodward, proprietors of "Sargol," came to an end, January 30, 1917, after a trial lasting thirteen weeks. Jones was fined $20,000 and Woodward was fined $10,000. Sargol was a nostrum of the get-fat-quick variety; as an alleged "flesh builder" it was advertised extensively and intensively by its exploiters. (Jour. A. M. A., February 3, 1917, p. 381; February 10, 1917, p. 468; February 24, 1917, p. 642.)

Fate of Trypsin in the Stomach.—Judging by recent experiments, it appears that the proteolytic enzyme of the pancreas isolated as trypsin is capable of withstanding a rather long digestion in presence of hydrochloric acid and pepsin provided that

sufficient protein is present to combine with all or a part of the acid and so bring the free acid down to a certain level. From the observations it seems possible that some tyrptic digestion may occur within the stomach when the free acid is low from combination with protein. The results do not, however, even remotely suggest that the administration of a few grains of the various commercial products claimed to contain trypsin or pancreatin would have the slightest therapeutic significance. (Jour. A. M. A., February 17, 1917, p. 554.)

Firwein.—The Council on Pharmacy and Chemistry reports that Firwein (the Tilden Co.) is sold under the claim that when swallowed it has a "predilection" both for the bronchial mucosa and also for the genito-urinary organs. The Council finds that little information is given in regard to the composition of Firwein. As the composition of Firwein is secret, the therapeutic claims unwarranted and its use irrational, the Council declared it inadmissible to New and Nonofficial Remedies. (Jour. A. M. A., Feb. 17, 1917, p. 564.)

Firolyptol Plain and Firolyptol with Kreosote.—The Council on Pharmacy and Chemistry reports that Firolyptol (the Tilden Company) is said to be composed of eucalyptol 10 drops, cottonseed oil ½ ounce, and Firwein enough to make 1 ounce, and that, as the composition of Firwein is secret, the composition of Firolyptol is also unknown except to the manufacturers. Firolyptol with Kreosote is said to contain, in addition to whatever may be the component parts of Firolyptol, 10 minims of creosote to each ounce. The advertisements for these two preparations seem to have for their keynote the assertion that cottonseed oil is a particularly valuable nutriment and that when combined with the constituents of Firolyptol and Firolyptol with Kreosote it becomes particularly valuable to the tuberculous. The Council discussed the extravagant claims made for these proprietaries; reminds that food and fresh air, not drugs, constitute the fundamentals of the treatment of tuberculosis; and finds that neither of the products is acceptable for New and Nonofficial Remedies. (Jour. A. M. A., Feb. 17, 1917, p. 564.)

Biniodol.—The Council on Pharmacy and Chemistry reports that Biniodol is claimed by the manufacturer, Charles C. Yarbrough, Memphis, Tenn., to be a solution of 1 per cent mercuric iodid and 2.75 per cent guaiacol in a vegetable oil and that it is marketed with the implication that it is new and superior to other oil solutions of mercuric iodid. The Council found that the claims of novelty and of superiority were not substantiated by the evidence. Clinical investigation did not demonstrate the effects of Biniodol to be different from those of solutions prepared in the A. M. A. Chemical Laboratory, with and without guaiacol. The Council declared Biniodol inadmissible to New and Nonofficial Remedies because claims of superior efficiency were not established; and because it is an unessential modification of an established non-proprietary article marketed under a proprietary name. (Jour. A. M. A., Feb. 24, 1917, p. 650.)

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A New Treatment for Tuberculosis

At the regular meeting of the Cincinnati Academy of Medicine, held January 8, Dr. Wm. E. Savage reported a series of tuberculosis cases treated by ether anesthesia, the closed-cone method being employed. The results obtained by Doctor Savage certainly justify a wide application of this treatment for the purpose of determining its value.

Practically every case was benefited and a number were apparently cured. Cough, fever, appetite, night sweats, weight, and expectoration were all favorably influenced, regardless of the stage of the pulmonary cases.

Uncomplicated tuberculous peritonitis yielded promptly, the improvement being noted immediately following etherization. Early tuberculous meningitis seemed to respond as promptly as tuberculous peritonitis. Several first-stage pulmonary cases were apparently cured. Second and third-stage cases showed marked amelioration of symptoms, being much more comfortable during the remainder of their lives.

Dr. Savage has no "cure for consumption" for sale. Any physician capable of administering ether can give this treatment.

Emphasis is laid on the method of administration, the closed-cone method being urged in order to exclude oxygen. The period of etherization varies from fifteen minutes to an hour, the duration being governed by the condition of the patient before and during administration.

First-stage pulmonary cases, early tuberculous meningitis, and uncomplicated cases of tuberculous peritonitis are the most favorable ones for treatment.

As there are thousands of cases scat-

tered over the country, it should not take long to demonstrate the value or lack of value of this method of treatment. The entire absence of secrecy, charlatanism, and commercialism should be three reasons for giving it a trial.—Cincinnati Board of Health Bulletin.

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Challenging Facts

G. Arbour Stephens, of Swansea, England, again reports (New York Medical Journal, October 28, 1916) striking results from the use of distilled water in syphilis, rheumatism, gonorrheal rheumatism, inflamed glands and appendix cases. In a case suffering from syphilis and gonorrheal rheumatism the man's occupation was resumed after three injections of 10 c.c. distilled water, although he had not worked for months. Chronic ear discharges have responded well. In constipated people the treatment obviates the necessity of taking aperient medicines. Satisfactory results have been noted in three cases of lead poisoning.

The author proposes the use of distilled water in leprosy, and is confident that it will be found of great value.

The rationale of the treatment is thought to be that distilled water, which has a high surface tension, when brought into contact with the leucocytes causes osmosis outward, whereby the antibodies therein are rapidly mobilized; also the leucocytic diapedesis is stimulated so that the scavenging qualities are improved.

These are challenging facts that ought to be examined seriously.—Medical Times.

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Pyorrhea Alveolaris

The bacterial findings in the mouth and their relationship to pyorrhea and interstitial gingivitis are discussed by A. W. Lescohier, Detroit (Jour. A. M. A., Feb. 10, 1917), who reviews some of the literature and says that his personal observations relative to the occurrence of streptococci, staphylococci and pneumococci in pyorrhea would place the streptococci first in frequency, and the staphlyococcus next, the pneumococcus being observed in only a small per cent of cases. The tendency, he says, to consider any etiologic factor as an entity instead of its relations to other influences is unfortunate, as irritation and injuries and metabolic disturbances may also play a part. The bacterial element is probably most important, however, in the destructive tissue changes, and certainly so in the serious sequels.

Pyorrhea

H. E. Potter, Chicago (Journal A. M. A., Feb. 10, 1917) says that roentgenography in pyorrhea alveolaris does not differ in its technical plan from that used in other procedures intended to shed light on diseases in the jawbones. The constant feature of the disease making this possible is the ulceration in the presenting margins of the alveolar processes and the more intimate bone about the roots. No such rigid technic is necessary in pyorrhea as in the demonstration of periapical disease, in which foci of minor decalcification must be detected. But in any pyorrhea case some of the changes about the roots showing deeper encroachment are important and the most critical roentgenography is required. Potter gives the appearances that must be looked for. Whether the line limiting the ulcerated process can be followed or not, it will usually show plainly in the region of the septal bone. There are limitations to the value of the Roentgen ray which are also mentioned, and a very important point in the diagnosis may be entirely undemonstrable, namely, the activity of the disease at the time of examination. A general survey of the denture by a series of dental films is an important adjunct of a pyorrhea case, and often a short cut to a diagnosis, but should supplement rather than displace other diagnostic methods. The most important diagnostic points are seen in the region of the intimate bony investments of the roots and are obtainable only from the most critical roentgenograms.

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Syphilitic Lesions

A. L. Fisher, San Francisco (Journal A. M. A., Feb. 3, 1917), calls attention to the fact that there is a considerable number of syphilitic cases simulating tuberculosis and other bone and joint lesions that escape recognition, and, second, that there is a considerable number of cases of bone and joint syphilis that give negative Wassermann reactions. He has seen at least eighteen cases of these, some of them unmistakable syphilis, within the last year or two. Of the second group, the larger one numerically, the lesions were in and about the joints rather than in the shafts of the bone. Many of the patients had been in institutions or hospitals where their disease had been regarded as tuberculosis and treated accordingly. Five cases selected at random are reported in the paper. He asks why we get so many

negative Wassermann reactions in bone syphilis. The percentage cannot be given exactly, but it seems at least 10 per cent. Another point that these cases emphasize is that fixation of syphilitic joints neither gives relief nor aids in the cure. Still another point is the large per cent of children in these cases, eight out of eighteen or really eight out of fourteen under ten years of age, quite a contrast to the ordinary teaching that syphilitic joints are not common in childhood. Another question that comes up is, What we are to consider as the most reliable test of syphilis? In his opinion it is unquestionably the therapeutic test, and he believes that this should never or almost never be omitted in trying to arrive at a conclusion regarding the nature of a chronic joint infection.

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Colloidal Acacia Solution

In a preliminary note on an experimental study of the effect of intravenous injections of acacia solution on blood pressure in hemorrhage cases, S. H. Hurwitz, San Francisco (Journal A. M. A., March 3, 1917), says that the value of blood transfusion in cases of dangerous anemia from hemorrhage is much greater than that of ordinary salt solution. Because of the non-colloidal character of salt solutions they pass rapidly out of the vascular system of the recipient and the rise of blood pressure they produce, though at times rapid, is generally only transitory. Clinicians therefore have sought for other fluids, and while the mechanism of blood pressure is not yet altogether clear, they have gained considerable knowledge from recent investigations by Bogart, Underhill and Mendel, and the studies of Fischer. About a year ago Hogan emphasized the fact that intravenous injections of colloidal or gelatin solutions are not diuretic, and their introduction into the blood stream causes a higher and more sustained blood pressure. Taking up the study, Hurwitz has found that repeated bleedings followed by the injection intravenously of a suspension of red blood corpuscles in Locke's solution caused a striking lowering of blood pressure, while similar injections with the addition of gum arabic were not followed by such a drop. He used the method commonly employed by pharmacists for emulsions, and in practice found it best to use an approximately 5 per cent acacia-Locke solution which gives a viscosity approximating closely to that of blood serum. Preliminary experiments and the employment of the acacia solutions in a number of patients have convinced him and his associates of the value of this solution in combating lower blood pressure due to loss of circulating blood, and equal success has attended its use following hemorrhage and shock observed in a limited number of patients. The solutions should be given as soon as possible, before the exhaustion of the vasomotor center and cardiac failure. To avoid embarrassment of the heart and fatal dilatation the introduction should be made at a moderate rate, and in not too large quantities.

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Experimental Endocarditis.

H. K. Detweiler and W. L. Robinson, Toronto, Ontaria (Journal A. M. A., Dec. 2, 1916), have followed up a research already reported (Journal A. M. A., Oct. 2, 1915), into the bacteriology of the blood in a form of endocarditis less severe than the type usually called sub-acute bacterial endocarditis. They have followed out the methods advocated by Rosenow and have elaborated a technic which has given them splendid results. "Thirty c.c. of blood are withdrawn into a record syringe which has previously been sterilized and loaded with 5 c.c. of sterile 2 per cent sodium citrate solution in normal saline. By inverting the syringe several times a thorough mixture is secured and clotting thereby prevented. The citrated blood is directly transferred to eight centrifuge tubes containing sterile distilled water. The result of this step is the laking of the corpuscles and the liberation of the hemoglobin. These tubes are immediately centrifuged at high speed, and the supernatant fluid subsequently pipetted off with a sterile pipet attached to a water suction pump. The sediment remaining in the bottom of the tubes is composed of the broken down hulls of the corpuscles together with any bacteria which may be present. This operation is performed inside a glass cabinet which contains a Bunsen burner, the tube to the suction pump and the tap from the broth reservoir. By merely adding bouillon to the sediment, each centrifuge tube is converted into a culture flosk, and is now ready to be placed in the incubator.

The sediment of two tubes is reserved to be mixed with ascitic agar for anærobic conditions. This is obtained in a satisfactory manner by making this mixture after the agar has cooled to 40 C. and pouring into a tall test tube, the result being almost complete anærobiosis at the bottom and a varying oxygen gradient as the top is approached." All of the strains of organisms used in these experiments were obtained from the blood from cases of chronic and subacute infectious endocarditis, and the important points which the experiments establish are that the streptococcus viridans isolated from the blood in cases of chronic infectious endocarditis is of very low virulence, probably lower than any hitherto reported from a similar source, but that they are capable of producing in animals lesions identical to those found in patients from whose bloods the organisms were obtained. Also that the strains of streptococcus viridans isolated from the mouth of normal individuals is similar to that isolated from the blood of patients suffering from chronic endocarditis, and is equally capable of producing heart lesions in the rabbit. The article is illustrated, and the tabulated results of the research are given.

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The Wasserman Reaction.

J. T. King, Jr., Baltimore (Journal A. M. A., Dec. 2, 1916), reports some investigations in regard to the so-called provocative test for syphilis. He selected patients with known positive Wassermann reaction and in various stages and forms of syphilis of the central nervous system and aorta, tabes dorsalis and paresis. In some the test was done before the administration of salvarsan, and four, eighteen, twenty-four and forty-eight hours after the injection. Most of the patients, however, were followed over five days, and some for several weeks. The details of making the test are given and the results tabulated. His conclusions as stated are: 1. In most cases little change occurs in the strength of the Wassermann reaction during the first five days following the administration of salvarsan. In this series of twenty treatments, only one case, in the primary stage, showed a marked weakening of the test. 2. Some previously untreated cases may be given prolonged salvarsan therapy with very little weakening of the Wassermann reaction. Such cases, however, show striking improvement symptomatically. 3. In this series only one insignificant temporary increase (provocative reaction) in the complement-binding substance could be demonstrated, following the administration of salvarsan. 4. It is improbable that, over short periods of time, there occurs any marked spontaneous fluctuation in the amount of complement-fixing substance in the blood of syphilitics. 5. Definite proof of the existence of the provocative Wassermann reaction following salvarsan is not at hand at the present time.

TWENTY-ONE—Medical Journal Rich

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A Widely Useful Soap

Most medical practitioners are doubtless familiar in a general way with the properties and purposes of Germicidal Soap (McClintock's formula)—a product which has been marketed for many years by Parke, Davis & Co., and which appears to acquire a constantly widening sphere of usefulness as time passes.

In obstetrics and gynecology Germicidal Soap is a valuable antiseptic, deodorant and lubricant for the examining finger or instruments.

In surgery it is an admirable general disinfectant. It can be used to prepare antiseptic solutions without the necessity of measuring or weighing, and without waste. For sterilizing hands, instruments and site of operation it is unsurpassed. The germicide contained in it is more powerful than mercuric chloride or phenol, and it does not coagulate albumin.

In office practice Germicidal Soap is efficacious in the treatment of parasitic diseases and as a disinfectant for the hands after examinations.

Other ways in which the soap may be advantageously employed are these: To cleanse wounds, ulcers, etc.; to lubricate sounds and specula; to disinfect surface lesions; to control itching in skin affections; to make solutions for the vaginal douche; to destroy the odor of hyperidro-

sis; to cleanse the hair and scalp and to remove and prevent dandruff; to disinfect vessels, utensils, etc.; to wash and sterilize bed linen, handkerchiefs and other appurtenances of the sick-room.

From the foregoing it will be seen that Germicidal Soap, P. D. & Co., is more than a soap—more than a germicide. It is, in fact, an antiseptic, disinfectant, deodorant, sterilizer, lubricant and detergent—all in one. It has been called "the soap of a hundred uses." The designation is not inapt.

℞

The increasing use of laboratory tests in modern medicine, as well as constantly growing pratronage, has made necessary a considerable addition to the laboratory facilities of the Battle Creek Sanitarium. In the urinary, fecal, chemical, bacteriological and pathological departments, about thirty persons are employed, a number of them being physicians and college graduates. In addition to the analyses, examinations, etc., in connection with the regular work of the institution, a certain amount of original research work is always carried on. At present, investigations are under way to find what carbohydrates will pass farthest through the intestine before undergoing complete digestion. Four cases of fistula near the ileocecal valve have made possible this study. Specimens taken from the fistula are examined and are also compared with those which have passed through the colon. The value of the study lies in the fact that undigested carbohydrates in the intestines lessen or prevent putrefaction. Those which are not absorbed in the earlier stages of the progress toward the colon are therefore of especial value.

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Amelia A. Dickinson, M.D., a graduate of Herring Medical College, Chicago, 1900, a member of the A. M. A., assistant physician of the Southern Indiana Hospital for the Insane, formerly of Pittsburg, Kansas, died of pneumonia in Evansville, Indiana, February 8, 1917.

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Dr. B. H. Day, of Hugoton, and a member of the Southwest Kansas Society, has recently been elected to membership on the board of directors of the Hugoton State Bank.

Dr. Fred H. Morse says: "Neuritis, in my opinion, is best treated by the application of vibratory stimulation as nearly as possible to the origin of the affected nerves. This is especially evidenced by the relief afforded from the treatment of sciatica when vibration is applied from the twelfth dorsal to the fourth lumbar vertebra, when marked relief follows without any further treatment."

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If alcohol is really responsible for all the physical and moral evils ascribed to it, Kansas should soon be the healthiest and holiest spot in the world.

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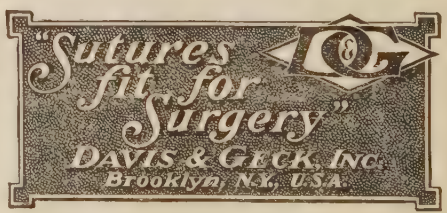

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A Recurring Dermatitis of the Face, with Associated Atrophic Changes in the Affected Areas

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The five following cases, all of which have been under my care for varying periods of time during the past three years, represent a condition which I believe has never been described. It is very probable that the majority of observers have classed it under the seborrhoeides, as I did when the first two cases came under observation, but prolonged clinical and microscopical study has convinced me that it does not belong to this group. Several dermatologists of wide experience whom I have consulted regarding the symptom complex, state that the condition is familiar to them clinically, although they have never investigated it thoroughly, and have usually considered the cases as aberrant examples of seborrhoeic dermatitis, or as unusual instances of rosacea.

Clinical Reports: No. 1: A. E., salesman, single, age 22. Referred to me by Dr. N. E. Lake, of this city. The patient was of Swedish descent, but was born and reared in Kansas. The cutaneous history of the family was negative. The patient's health had always been excellent, except for the skin disorder. He had never been troubled with seborrhoeic dermatitis of the scalp, or nose, nor with acne vulgaris.

Ever since his tenth birthday he had suffered more or less from a recurring, erythematous eruption, symmetrical in distribution, which was confined to the cheeks, particularly the upper two-thirds, and the anterior surface of the chin. Three or four times each year the skin covering these areas became reddened, edematous, somewhat tender on pressure, and the seat of considerable burning and itching. There was never any vesiculation, and little, if any, exfoliation during or following the attacks. Exposure to the sun in hot weather, very close shaving, or the use of a strongly alkaline soap on the face, would precipitate an attack, or exacerbate one that was already present. The condition was most troublesome during seasonal changes, but at no time during the year was the patient immune from an attack. The presence of digestive disturbances, or intemperate eating, rendered the condition worse, but appeared to bear no direct relationship to its causation. There were never any perceptible constitutional symptoms. Plant dermatitis could be excluded. The patient had never suffered from chilblains, or cold extremities or hyperidrosis, but blushed easily and on slight provocation.

Examination: The patient was a strong and apparently healthy young man, with gray eyes and an abundant amount of light brown hair. The scalp was free from dandruff, and there were no greasy scales, or hyperaemic areas or other evidence of the presence of seborrhoeic dermatitis in the frontal, naso-labial or sternal regions. The Wassermann and tuberculin tests (which were not made at the time, but in March, 1910) proved negative. The blood pressure was 148 mm. Hg. (Riva-Rocci, recumbent posture, 14 cm. armlet). The urine was normal. The patient stated that an attack had commenced on the day preceding the examination. On either cheek was an irregularly oval, erythematous patch, about 7 x 12 cm. in extent. The skin within this area was considerably reddened, tense, shiny, and edematous. A similar lesion, about 3 cm. in diameter, was present on the anterior surface of the chin. At the borders of the lesions the redness shaded gradually into the surrounding healthy skin, and the induration

also was sharply outlined. The patient complained of burning and itching in the affected regions. The lesions on the cheeks were more clearly defined than the one on the chin. The ears were not involved. The buccal mucosa was normal. There were no constitutional symptoms. A diagnosis of acute seborrhoeic dermatitis was made, and a mercurial cathartic, with calamine lotion for the face, and Elliott's wash for the scalp, prescribed.

The shake mixture relieved the subjective symptoms, and the inflammatory manifestations subsided in the course of a week. The skin regained its normal color and surface contour, although it remained extremely sensitive to the action of irritants. Since the case has been under observation, however, the attacks have continued, despite medication and the adoption of the usual various hygienic and prophylactic measures. Local applications which relieved the subjective symptoms at first, completely failed to do so later, and, during the past three years, the patient has employed a great number of the antipruritics that have from time to time been recommended. The resulting benefit is invariably transient, each remedy appearing to lose its efficiency after a few trials. The greatest degree of comfort has resulted from the use of the fluid extract of grindelia robusta, from 10 to 25 per cent, aqueous solution, applied several times daily. Total abstinence from alcoholic liquors, tea, coffee, pickles, cheese, canned meats, etc., has been the rule, and the patient has been very conscientious in carrying out the instructions given.

No. 2: C. K., female, schoolgirl, age 18 years, referred to me by Dr. J. Archie Robertson, of this city. The patient was of German parentage, but a native of Missouri, and a resident of Kansas City. The cutaneous history of the family was negative. The patient had never had a severe illness of any kind. She had been slightly troubled with seborrhoea of the scalp, but had never had comedones or acne lesions on the face or chest. Menstruation commenced at the age of 14, and had since been regular and painless.

The skin disease for which relief was sought had been present at various times during the preceding eight or nine years. At first it had been most pronounced during the early spring months (March and April), but more recently the attacks have been more frequent, several occurring each year.

The involved areas corresponded almost exactly to those of Case 1, although the lesion on the chin was less noticeable. Exfoliation following the attacks was somewhat greater, but this was a very inconspicuous feature in both cases.

The blood and urine were normal, and a tuberculin test negative. The subsequent history has been practically the same as in Case 1.

No. 3: O. E. R., male, married, lawyer, age 43. Referred to me by Dr. G. Wilse Robinson, of this city. In this case the erythematous condition involved the cheeks and forehead, and there was a well defined associated seborrhoeic element. The affection had been present since the patient's tenth or eleventh year, the seborrhoea or seborrhoeic dermatitis developing about five years later. There was present an alopecia pityrodes, and some scaling in the region of the eyebrows.

The excessive oiliness of the face promptly disappeared following the topical use of Elliott's resorcin and alcohol lotion, and the condition of the scalp was greatly improved by the daily application of the bichloride and alcohol mixture, but the erythematous condition has continued to recur, despite all treatment. As in the preceding cases, the surface always remains dry, and there is no perceptible vesiculation, but the skin becomes reddened, tense and edematous, and there is a considerable degree of itching and burning. The response to the numerous therapeutic measures employed has been very similar to that in Cases 1 and 2. The simple applications at first give relief, but every remedy that has been tried appears to eventually lose its soothing effect, and, if its use is continued, ultimately proves more or less irritating.

No. 4: J. W. B., male, single, clerk, age 22 years. Referred to me by Dr. Arthur E. Hertzler, of this city. The patient is a native of Kansas and a resident of Kansas City. A younger brother, who is now 17 years of age, and a resident of Halstead, Kansas, has been similarly affected since his eleventh year, otherwise the cutaneous history of the family is negative.

Ever since the patient could recollect, the skin of his face had been exceedingly tender and sensitive to irritation of any kind. A moderate seborrhoea had been present since puberty, but there had been no perceptible seborrhoeic dermatitis of the scalp or face, and acne lesions had never developed. Between attacks the skin had always been smooth and pink, with no macroscopic evidence of atrophy. The

circulation was excellent, but, as in Case 1, the patient was of a nervous temperament and flushed easily. The general health had always been very good. There had never been any symptoms of indigestion.

Examination: The patient was a well developed, muscular man, with light brown hair and eyes. The blood and urine were normal. The Wassermann test gave a negative result. There was a slight reaction to tuberculin, by the v. Pirquet method, but no elevation of temperature following injection. The skin on parts other than the cheeks was apparently unaffected in any way. There was a slight seborrhoeal involvement of the nose and the naso-labial folds. The scalp was free from dandruff and there was no alopecia. An attack had begun two days prior to the first consultation. Only the cheeks were involved (the chin had never been affected). On both sides of the face the skin was reddened, tense and edematous, and sensitive to pressure. There was considerable itching and burning, but no exudation, the skin being perfectly dry. The buccal mucosa was normal. There was no accompanying redness of the nose. There was no dilatation of the superficial capillaries of the nose or cheeks. The attack persisted for almost a fortnight, despite treatment. The subsequent history has been the same as in the preceding cases, both clinically and therapeutically.

No. 5: F. F., female, single, school teacher, age 22 years. Referred to me by Dr. Joseph W. Howard, of this city. The patient is a native of Missouri, and a resident of Latour, Mo. The cutaneous history of the family is negative. The condition from which relief was sought had been present ever since the patient could recollect, but had been more troublesome during the past ten years. The eruption had always been erythematous, and symmetrically distributed over the cheeks and chin. There had never been any oozing, or papule formation, although itching and burning were prominent subjective symptoms. Between attacks the skin was apparently normal. The patient had always been of an extremely sensitive disposition and blushed readily and on the slightest provocation. Menstruation had begun at the age of 15 and had been regular, though sometimes painful, since. Its occurrence appeared to bear no relation to the development or course of the eruption on the face.

The patient was a well proportioned, healthy appearing young woman, with brown hair and eyes. The skin on parts other than the face was unaffected. The blood pressure was normal. There was a slight reaction to tuberculin (v. Pirquet). At the first consultation an attack had been present two days, and the affected areas were dusky red in color, and much more clearly outlined than in any of the cases previously described. The skin was edematous, particularly on the cheeks, and pitted slightly on pressure. Neither seborrhoea nor seborrhoeic dermatitis were present. Following the attack there was a slight amount of scaling, which continued for six or seven days. At the end of this time the skin was apparently normal.

During the next attack, which occurred five weeks later, the same areas were involved, and, in addition, there was present considerable edema of the lobes of both ears.

Histological Reports: For laboratory purposes, tissue was removed from the right cheek of Case 1 (about one year after the first consultation), from both cheeks and from the side of the chest in Case 4 (from the right cheek at the time of the first consultation, from the left a fortnight later, and from the right side of the chest one month later), and from the lobe of the right ear of Case 5 (six weeks after the first consultation. Permission to biopsy the cheek in this instance was refused). The material was fixed in formaldehyde solution, and mounted in paraffin or celloidin, or cut in a freezing microtome. For comparison, normal skin from a 22 year old man and skin from a case of seborrhoeic dermatitis of the face in a man 23 years of age was used. The usual stains were employed.

The specimens from both cheeks in Case 4 and from the right cheek of Case 1 showed almost identical changes, and the findings will be given in detail. In the tissue excised from the ear in Case 5, there was slight edema of the prickle cell layer, and some dilatation of the lymph spaces and blood vessels in the derma, with a small amount of round cell infiltration. The skin from the right side of the chest in Case 4 was unchanged.

In the section from the cheeks in Cases 1 and 4, the corneous stratum was but little affected. The transitional layer was not sharply defined. The rete was reduced in depth, and the cells stained poorly and unevenly. In the basal layer, shrunken and irregular cells, many having a pericellular halo, were frequent. The papilli

were almost totally obliterated. In the papillary and subpapillary regions the elastic fibers, although short and fragmentary, were greatly increased in diameter, and illy defined. The separate filaments appeared swollen and "fuzzy," and the general impression at first glance was that the upper portion of the derma consisted almost wholly of poorly stained elastic tissue. On closer scrutiny it was found that considerable amounts of collagen were still present, although but slightly affected by acid and neutral stains. Distributed through the elastic network were small collections of pigment granules, suggestive of the "granular clouding" of Neumann (Lehrbuch d. Hautkrank., Wein, 1874, fig. 53). The vessels in the upper cutis were lessened in number, and those present were small in size. Immediately beneath the subpapillary region there was a considerable round cell infiltration, and some mast cells. A few of the vessels were dilated —the capillaries here were more numerous than in the controls—and perivascular infiltration was common. The collagen in this region was but little fragmented, and stained fairly well. The coil ducts and glands were apparently normal, and there was no mitosis of the glandular epithelium. No free fat was to be found. The sebaceous glands were slightly larger than those in the controls. The cells were plump and the elements sharply differentiated. There were no signs of glandular or periglandular inflammation, although evidence of the presence of a diffuse, low grade inflammatory process — vascular dilatation, lymphocytic infiltration, and small areas of hyperplasia — was abundant in many parts of the derma. The subcutaneous fat was unchanged.

The condition may be confused with rosacea, dermatitis venanata (particularly the form resulting from contact with primula obtonica and similar household plants), seasonal pruritus, trythema multiforme, lupus erythematosus and acute seborrhoeic dermatitis.

In rosacea the nose seldom if ever entirely escapes, the superficial capillaries are nearly always dilated, the congestion is more or less permanent in character, and, histologically, there is an hypertrophy. Dermatitis vananata can be excluded by the history, and also by the fact that the condition here described always affects only certain regions. Seasonal pruritus may be ruled out by the same evidence. In erythema multiforme the lesions are seldom confined to the face, commonly there are associated constitutional symptoms, and it would be very unusual to find five such similar cases in which the disease had always been of the macular type only, and had recurred with such great frequency over so long a period of time.

In lupus erythematosus, "butterfly" or "bat wing" shaped areas on the cheeks are usual, but atrophy is as a rule a prominent feature, the orifices of the sebaceous glands in the affected region are commonly patulous, and scaling is a conspicuous symptom. Occasionally patches of lupus erythematosus disappear for a time and then recur, but rarely, if ever, with the persistence and frequency shown by the lesions in the cases here described.

The differentiation of an acute seborrhoeic dermatitis is not so easy, and this was the diagnosis originally — though doubtingly — made when the first two patients applied for relief. The course of the disease, however, together with its failure to satisfactorily respond to therapeutic measures, and, later, the discovery of the senile-like atrophy of the skin in the affected areas when Case I was biopsied, aroused more suspicion regarding the correctness of the decision. The second and third patients absolutely refused to part with any material for laboratory study, consequently confirmatory evidence regarding the histological changes was not secured until the fourth case appeared. This patient, an exceedingly intelligent and very courteous gentleman, has been extremely liberal regarding the matter of biopsies, and I am deeply indebted to him for the very considerable amount of tissue that he has from time to time allowed me to excise. The question of etiology in these cases is a puzzling one. Anaphylaxis may be a factor, but, in the absence of more direct proof, such a phenomenon is too much on the blanket-like order of the "uric acid diathesis" to prove acceptable in this instance.

Instability of the peripheral circulation, as shown by frequent flushing of the face, in Cases 1, 4, and 5, is probably of some significance, as is also the non-dilated condition of the superficial capillaries.

The fact that the lesions are symmetrically distributed and are almost wholly confined to the flush areas of the face, is very suggestive of a reflex origin, particularly as a result of gastro-intestinal disturbance. The excellent physical condition of the patients, together with their freedom from the subjective symptoms of

dyspepsia, would militate against such a theory, but would not render it wholly untenable.

The Indian Medicine Man

FRED L. MCDANIEL, M.D.
Of Osawatomie Hospital Staff

Read before the Miami County Medical Society, Osawatomie, Kansas.

In this little article I will confine myself to the native Indian medicine man of the Navajo tribe of Indians, which is possibly the largest tribe in the United States, living on a reservation of 15,000 square miles in the states of New Mexico and Arizona. The Navajos are firm believers in witchcraft and charms. All diseases are believed to be caused by evil spirits and evil influences. They also believe they can be made ill by evil influences of their enemies.

The medicine man is usually a man of considerable intelligence. He is looked upon as both a priest and healer, and he takes good care to see that these superstitions, ceremonies, and customs are diligently kept alive, as it is by this means that he is able to prosper and grow fat with very little exertion on his part. I may say that the Indian medicine man represents the oldest form of the graft game in America.

The medicine man has different methods of treating his cases, but in general follows one set routine. Take for instance a case like the following: Old Man Tom Bega living out on the reservation in his hogan has his little son come down with pneumonia. He immediately decides to send for the Yaze-Is Kle or medicine man. The medicine man will ride over much the same as a country practitioner, bringing with him instead of a medicine case a large bundle of his paraphernalia, which includes some eagle feathers, a bundle of roots, a buckskin tambourine or medicine drum, and various mystical articles which are placed conspicuously around the patient. He will then order the child stripped of its clothing and with a piece of charcoal paint its body a sooty black, at the same time chanting a weird song. The child will then be wrapped in a blanket and is not touched again during the treatment save to give it a little water and food from time to time. The treatment from this time on consists entirely of singing by the medicine man. There are said to be nine hundred different songs which must be learned by a Navajo medicine man in order to qualify as a practitioner in the tribe. So while the child lies neglected and suffering, the medicine man will loll about the house, singing his medicine songs at intervals, accompanied by a rhythmic tom-tom on his drum. He gets his board free and requires the best that can be procured. He takes things easily and if the child gets well assumes the full credit for the marvelous cure, and collects his fee, which may be anything from a sheep to perhaps two or three ponies valued at twenty-five dollars each. If on the other hand the child dies, the medicine man will declare that the evil spirits and bad influences were too strong and he was unable to combat them on account of not being able to procure certain needed mystical charms, etc.

More often, however, when the medicine man sees that his patient is going to die he will suggest that perhaps the family call in the "Bellacanna Yaze-Is Kle" or white medicine man. When the government physician sees the child it is usually moribund and the medicine man tells the family that the white doctor is the cause of its death, thus absolving himself from all blame.

The Navajos are firm believers in prenatal influence and attribute any chronic disease or infirmity which they may have during their life to some evil influence exerted upon their mother before they were born. As for instance should a pregnant woman look upon a dead animal or see a rattlesnake or coyote during her pregnancy, the evil spirit of this animal will continue to exert a baneful influence upon the child of this woman all through its life and all diseases and injuries suffered by this child throughout its life are attributed to this fact.

Now the antidote for this condition as prescribed by the medicine man is a series of mystical ceremonies extending over a period of a week or ten days and known as "Ha-ba-chi" or the Sacred Sand Paint Ceremony of the Navajos. These Ha-ba-chi are arranged for as follows: The patient will send for some medicine man of great repute and tell him he wants a Ha-ba-chi in order to counteract and drive away the evil spirits which are the cause of his trouble. The medicine man will then require a cash fee, which is never less than one hundred dollars and often more, as only the wealthiest Indians can afford a Ha-ba-chi. The medicine man will select a corps of experienced assistants and pick out a suitable place. The

patient will be brought in and with him will come all his friends and relatives, who will enjoy themselves and make the most of the occasion, as the patient will have to furnish all the food and amusement for the crowd as well as provide specially inviting dishes for the staff of medicine men. During the first day of the ceremony the whole crowd present will have to go through initiatory ceremonies which no white man is allowed to see. Then there are several days of desultory chantings on the part of the medicine crew and heap big time for all present, however much the patient may be suffering. The last day is usually the day of the sacred sand painting.

Promptly at sunrise a space of ground is cleared and scraped perfectly smooth. Then different colored sands are brought and placed in little piles convenient for the painters. The sand painters, using only their thumb and forefinger, proceed to paint very beautiful and artistic designs on the ground with colored sand. The painting may cover a circle of about ten feet in diameter and is usually completed by late afternoon. Then the sick man is put in the center of the painting in a kneeling posture. The chief medicine man begins a weird and mystical chant, gradually the entire crowd joins in and the weird, barbaric chant rises and falls in rhythmic precision. A nude danced with hideous headdress springs into the circle and dances around and about the sick man, touching him here and there on the body with an eagle's feather. A cup of some dark liquid is given the sick man to drink and a smoke ball giving off a strong pungent odor is thrust under his nose. He is then led away. The sand comprising the painting is carefully gathered up and scattered to the four winds. The treatment is over. Often after this ceremony an almost bed-ridden man will declare himself better or even well, due to the strong psychic effect. However, the relapses after this treatment are about 100 per cent.

The original Indian medicine man is doomed. The young Indians are being sent away to school and are learning the white man's ways, are studying the science of sanitation and are learning to depend upon the knowledge and skill of the white medicine man. The old and superstitious Indians are fast dying out and their places are being taken by their educated and cultured children. Thus we see the passing of the old-time Indian medicine man, the present powerful obstacle to the civilization of the American Indian; but he is beginning to pass on and no one who knows conditions among the Indians will regret his passing.

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The Bone Graft Versus the Plate

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Read before Northeast Kansas Medical Society, Leavenworth, Kansas, March 1, 1917.

When one takes into consideration the troublesome experiences which the metal plate too often gave the average surgeon, the rapidity with which bone grafting, in spite of its annoyances and shortcomings, came into favor, seems rather surprising.

The explanation for this condition of affairs is to be found, I believe, in the fact that, by the time the technique for bone-grafting had become developed, surgeons had learned from the use of the plate that, in order to be successful in this sort of work, instruments had to be used more and manual manipulation of the wound less than had hitherto been the custom.

Indeed, many careful and competent surgeons had discovered that many of the accidents which followed plate work—such as infection, sinuses, and non-union—were really due, not to the presence of the plate but to faulty technique, especially in regard to asepsis. Consequently when better care was given to bone-grafting operations than had often been given to plate operations, the results were superior to those which had followed plate work.

It is probably quite true that the metal plate, as a foreign body, does have a tendency at times to retard, if not to prevent, union; while in a bone-graft, even though the work connected therewith be done somewhat indifferently, the graft untimately becomes absorbed and therefore does not act as a foreign body. However, if the metal splint be placed in position with absolutely proper technique, and good judgment is used in the selection of cases for its employment, I am sure the plate will usually afford very much greater satisfaction than it has at times given in the past.

The plate and the graft each possesses certain advantages over the other. For the metal plate the following points may be urged: Very much less callus is thrown out than is the case with a graft; the patient, as a rule, is able to get about much sooner; no plaster cast is needed, and there is usually very much less serous discharge than follows the graft operation.

On the other hand, the metal plate may break at times. I had this accident happen in one of my cases. I think, however, that it was my fault and was not due to a defect in the plate. It occurred the ninth week after operation but, nevertheless, bony union took place, and the presence of the broken plate apparently causes the patient no inconvenience and he will not have it removed.

In another case a superficial abscess developed two years after the plate operation. It was believed that the plate was causing the trouble, and an operation for the removal and drainage of the abscess was performed by another surgeon who was, by the way, a bone-graft enthusiast. This surgeon freely admitted after the operation that he did not believe the plate was responsible for the abscess, but that it was due to a spicule of necrosed bone which had become detached at the time of the original operation. Excessive manipulation of tissue instead of careful and skillful reposition of the bone fragments with the improper size of plate, frequently cause later trouble.

It may here be noted, parenthetically, that learning how to overcome some of the difficulties which are inseparable from work with the Lane plate had a very salutary effect on other surgical work. Abdominal surgical technique, especially, has profited much therefrom, because no abdominal operation calls for greater care and skill than does plate work.

The results of my use of the bone-graft have been very gratifying. In one case of an old ununited fracture in a patient 56 years of age whose case was looked on as very unfavorable, I got a very good functional result by bone-grafting.

An interesting case was that of a laborer, 40 years old, white, who sustained a compound comminuted fracture near the middle of each of his thighs by the collapsing walls of a building falling on him. Careful first aid was extended him but, nevertheless, it looked for a time as though amputation of one or both limbs would become necessary. However, after the use of antitetanic serum, sterile dressings and the help of the X-ray, it was thought advisable, at the end of ten days, to apply a Lane plate to the right femur.

The wound in the left thigh continued to have such a free, serous discharge that not until twelve days after the first operation was it thought advisable to operate on the left femur. The comminution here was so great that a Lane plate was considered to be out of the question and an inlay graft operation was therefore done. The graft was taken from the left tibia.

Contrary to what surgical experience would have led us to expect, both femurs healed by first intention, the bone with the plate showing practically no callus formation. Around the bone transplant, however, a heavy callus developed, as usually happens. The plated femur made little trouble, compared with that caused by the one with the transplant. No cast was used on the limb with the plated femur and slight movement of the limb was permitted by the end of fourteen days.

The two wounds in the left thigh—the original fracture wound and the wound through which the transplanting had been done—healed very much more slowly than was the case with the wounds in the plated thigh. The ultimate result was, however, just as good in the limb with the transplant as in the one with the plate, notwithstanding the fact that the comminution was so great that a metal plate could not be used.

Summing up the claims for bone-grafting it may be stated that, in this operation, no foreign body is introduced into the wound; that the bone-graft seems to tolerate less perfect aseptic technique, and that it can be done in cases where the injury to the bone seems too serious to admit of proper anchorage of the plate.

The bone graft may be a sliding graft from the broken bone or a transplant from another bone, depending on circumstances. The parts should be handled as little as possible and the graft must be held firmly in place. I have been using No. 3 chromic catgut, but I do not think that it is strong enough in some cases. Heavy kangaroo tendon would be stronger and better, but perhaps the ideal suture material would be a phosphor-bronze wire. It is very strong and pliable, will not cause any irritation, and very little of the wire is required.

Nearly every operator has a motor saw but, with a good chisel and mallet, the work can be done quite satisfactorily without it. The after treatment of these cases is very important and the more personal attention the surgeon gives them, the better will be the result. Without going into the matter of the osteogenesis involved in these cases, it may be said that it is quite important to preserve the periosteum of the transplant. Union will take place more promptly and more firmly and the danger of having the graft absorbed without

union taking place will be largely obviated. A good blood supply is imperative for the growth of the graft but as little blood clot as possible should be allowed between the surfaces in apposition. Union in these cases is always slow but if the operation has been properly done and complete immobilization is maintained, little fear need be felt for the result; but it should be remembered that the new blood vessels which must be formed in order to make the operation successful, cannot be grown over night. A good rule to remember in regard to immobilization in bone grafting is that, in addition to being complete, it should be maintained for a period twice as long as that demanded in an ordinary fracture.

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The Possible Role of the Glands with Internal Secretion in Problems of Psychiatry

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Read before Franklin County Medical Society, August 30, 1916.

Little more is known today of the causes operative in the production of the various psycoses than was known one hundred years ago. Contributing causes have been quite thoroughly worked out but the immediate exciting cause of these conditions remains as great a mystery today as it did then and has given rise to hypotheses whose foundations have been of the most unstable character and upon these foundations great castles of theory have been reared that in the absence of a scientific center of gravity stand as monuments to the imaginative and creative power of their sponsors. Many of these in the absence of more accurate data have necessarily been accepted as true. The excursions of these theories have been so wide that they have included without partiality and with equal enthusiasm the possible and the absurd and have clothed each alike in the vestments of euphonious verbiage calculated to instruct but in reality dismaying the reader. Primarily intended to illuminate, they have succeeded only in making "confusion worse confounded." Pathology, so far, has revealed the effect, not the cause, of these phenomena. The mysterious divergence of mental and motor impulses, the disarrangement of normal mental poise resulting in alienation involves a problem the solution of which the future alone holds. The very nature of insanities, their various types and classes precludes the possibility of arriving at a determination of the etiologic factor by exclusion, and considered in its entirety the field is so vast, the conditions and types so varied, that this task is impossible. The preponderance, as well as the variety of theory evolved, relative to the causation of these conditions is equaled only by the paucity of sound judgment so often displayed in their formulation.

At frequent intervals our nomenclature has been enriched by the addition of words coined to describe or designate various stages, phases, symptoms and conditions of mental perversion, until an understanding of even the nomenclature of psychiatry seems an endless if not a hopeless study. Theories such as the Fruedian, so visionary, so far-fetched and of so many inconsistencies so baffling to the ordinary thinker that he places them on the border land of the occult, have been espoused and defended by investigators and students of unquestionable prominence and ability. Yet with all, just what change in those highly sensitized cellular elements takes place at the very moment that perversion of mental and motor impulse occurs remains an unsolved mystery. Whether the fault be in the brain cell, the association fiber or the afferent or efferent conducting tract, whether with the perception or reception of external stimuli or arising centripetally in the form of complexes, we must seek the immediate cause and must arrive at a greater degree of certainty than we have yet attained before further definite progress can be made, and it is with a view of directing attention to certain trophic and systemic derangements, the causes of which are at present accepted and proven as due to the derangement of the normal balance of secretion of the ductless glands whereby nutrition is impaired or perverted, producing gross changes in the nervous and bony structures, the skin and its appendages and the skeletal muscles, and frequently exhibiting concomitant mental changes of greater or less degree, this crude attempt to correlate these grosser changes in our tissues with the more delicate and complex disturbances of the central nervous system leading to distortion of thought, judgment and self control, is made. Perhays the most substantial scientific advances made along the line of medical progress in the past twenty years has been in the recognition of the role played by the various ductless glands in nutritional disturbances hitherto veiled in ob-

scurity. Thus disease of the adrenals has been identified as the causative factor in Addison's disease, thyroid hypo or aplasia, as provocative of cretenism and myxoedema, diseases of the hypophysis as responsible for certain aberrations of growth resulting in gigantism or infantilism and frequently associated with mental aberrations. The seeming proof of functionation of the thymus and its bearing upon certain nutritive problems, the identification of the existence of an internal metabolic secretion of the ovaries and testes (so-called Endocrine glands), all tend to confirm us in the belief that not only are these secretions necessary to proper metabolism but that there is a certain interrelation and interdependence in their functionation, the one acting in turn as inhibitor or excitor of the functional activity of the other, their normal and harmonious secretive co-operation being essential to the maintenance of a proper balance of nutrition. It is entirely reasonable to assume therefore that various nutritional disturbances may occur from alteration in the secretive function of any one of these interdependent glands and that these disturbances are characterized by manifestations of mental or physical divergence from the normal, dependent not alone upon the gland involved but upon the nature of its secretive abnormality as well. Certain obscure deviations from the normal in the processes of metabolism still remain unaccounted for and analogies may be reasonably drawn between conditions the exciting causes of which are known and those that are at the present time but little understood. The antithesis of the morbid processes of myxoedema and cretenism is found in conditions of hyper-thyroidism. The asthenia, low blood pressure, general weakness and muscular relaxation attendant upon disease of the supra-renals finds its opposite in the muscular hypertonicity, rigidity and tremor of paralysis agitans and tetany. While it is definitely known that removal of the parathyroids produces a fatal tetany, the hypothesis that either paralysis agitans or tetany might be due to perversion of the secretions of these blands has but very recently been advanced. While it remains an unsettled question whether the so-called thymic asthma is mechanical or toxic in origin, the weight of opinion at the present time seeming to favor the former view, the theory that bronchial asthma might be due to thymus or other glandular secretive perversion has not been advanced.

The causes operative in the production of pernicious anemia yet remain undiscovered. Perversion of the internal secretions of the ductless glands has never been presented as a possible cause of these phenomena aside from a vague implication of the spleen. With a century's accumulated knowledge of epilepsy, practically nothing is known of the cause of these motor storms that occur as veritable explosions of motor energy. In the presentation of a theory tending to incriminate certain of the ductless glands or their secretion as factors in the production of mental obliquities, it is necessary to make frequent digressions and to touch upon modern advances in other fields seemingly irrelevant to the subject. Such digressions are made solely with a view of presenting analogies in the realm of physical abnormality that might be corroborative of the existence of the same morbid agency in the production of mental disturbances. The assumption of heredity has served as a convenient short cut in dodging many of the problems that are at present beyond our power to analyze and carries with it nothing of enlightenment, as having arrived at a conclusion that any given anomaly is inherited, we fail to seek the cause of this inherited quality or to define whether the inheritance be in the cell type, the normal protective agency of the body or in a predisposition to modified glandular activity resulting in nutritive changes affecting special structures. The theory of heredity is at best but a hypothesis that may not justly be claimed as scientific. We acknowledge its existence without attempting to explain its cause. Today it represents to us no more of science than the exploded theory of the miasmatic cause of malaria. Nowhere in medical literature is the term hereditary more frequently or more inadvisedly used than in the consideration of mental diseases and its employment merely implies a knowledge we do not in reality possess, i. e., an understanding of the potentialities underlying this predisposition to mental or physical aberration from the normal trend, in growth, development or resistance of the individual, and while we may fully recognize heredity as a factor and are frank to admit the tendency of like to beget like in mental, moral and physical fiber as well as in species, our knowledge of when or how or why this inheritance is tranmitted is nil.

Within the past year Lewandowski's[1] remarkable work has brought us in closer

touch with many of these obscure changes and his implication of the glands with internal secretion in the production of abnormal mental and physical trends, tends to illuminate many obscure points in various morbid condition. He has fully covered the ground of exophthalmic goiter, myxoedema, cretenism, tetany, dystrophia adipogenitalis, acromegaly, pineal gland anomalies, the adrenals, status thymolymphaticus, agenitalism, menopause and Dercmus and Paget's disease.

Cushing's work on the hypophysis has aroused the keenest interest and his observations on the effect of hypophysial disease upon the physical, the genital, and the mental status of the individual mark a distinct progressive step that has been confirmed by the researches of Nawaczynski[2] and Von Eiselberg[3], and the contributions of Ott and Scott[4], relative to the role played by the pineal gland in genital functionation, and it seems from their observations that the agency of this gland in governing the growth and development of genital functionation is beyond dispute, while Kidd[5] shows a close metabolic and neurologic relationship to these genital functions, also, quoting Foa's[6] experiment on cockerels, tending to prove the inhibitive action of pineal secretion on precocious genital function. It is highly probable, however, that this is not the primary function of the secretion of this gland but so far seems the only one demonstrated. I quote these merely as confirmatory of the hypothesis that the normal balance of nutrition is dependent upon a proper synchronism in the functionation of these glands, the interrelationship of which is now conceded and the unequivocal interrelationship of the hypophyseal, thyroid and genital glands may no longer be questioned. We are now certain that when the normal secretive balance between the anterior and posterior hypophyseal lobes suffers disturbance whereby its secretive function is impaired or thrown out of balance and where the secretion of the pineal gland may be assumed as normal, resultant infantilism or gigantism or both with genital under development is noted. Hypersecretion of the pineal gland on the other hand, even with a proper functionating anterior hypophyseal lobe, produces the same anomaly, while a hyposecretion of the pineal gland or a hypersecretion of the anterior lobe alike result in sexual precocity and over sexual development. Disturbances of the mental processes are equally noted in both instances and while not subscribing in any manner to the fantastic theories of Freud that the basis of precocious mental disturbance is inevitably associated with definite sexual complexes, or to place it more clearly, that a sexual factor enters unmistakably into the development of all juvenile psychotic manifestations, this finding of the results of disturbance of the hypophyseal secretions is somewhat corroborative of his theory, only, however, as relating to a sexual element of disturbance; namely, that noted in cases wherein a hyposecretion of the one or a hypersecretion of the other results in the sexual precocity before mentioned. Upon this theory, Huesner and Cooper of the Topeka State Hospital have undertaken the experimental treatment of certain dementia praecox cases of the catatonic type with pituitrin with apparently encouraging results.

In the consideration of the so-called autointoxication, the theory has been accepted that these toxemias are a result of faulty biochemical processes in the cycle of digestion whereby the ordinary and intended molecular cleavage is altered and vicious chemical combinations resulting in the formation of poisonous proteins occur, the system being poisoned by a perversion of the nutrition agents intended for its metabolism. It has not been shown or clearly attempted, that these poisons exert their force upon the tissues directly, and the probability is that their primary effect is upon the glandular secretions, and the secondary toxic manifestation due to glandular disturbance or secretive alteration, the structures ultimately compromised being dependent upon the secretive disturbances caused by, rather than a direct selective property of, the noxious agents. We must admit that there exist certain phases of these conditions that so far are extremely obscure that might readily be explained by a theory of this kind. As these facts are forced upon our comprehension is it not well to attempt to analyze the same agents as causative in the more obscure etiology of mental diseases, especially as so many conditions of coexistent physical and mental abnormality are noted?

Many of our types of mental disease are dictinctly toxic in their clinical symptoms and apart from the factor of disturbed mental processes, exhibit all the evidences of systemic toxemia, at the present time vaguely designated as auto-intoxication, and are marked by secretory, excretory and circulatory alterations and very fre-

quently by elevated temperature. Sometimes these physical changes are profound as in amentia and melancholia, sometimes less marked as in dementia praecox and manic states, yet it is present and demonstrable in practically all.

In the opening chapter of Beidl's[11] excellent monograph he makes this significant statement: "Today the doctrine of the internal secretions plays an important part in almost every department of physiology and pathology and is employed in the solution of some of the greatest problems that biology affords. Nothing is more characteristic of this change of view than Schiefferdecker's hypothesis of the part performed by specific internal secretion in the functions of the nervous system. 'Internal secretion,' he says, 'determines the effect which the products of metabolism, excreted by the nerve cells during the simple processes of nutrition, will exercise upon other nerve cells or upon the cells of the end organ, such activity being called 'trophic.' It also determines the effect which the products of metabolism, excreted in the course of specific activity, will produce, and this effect is known as irritation or stimulus.' This view of the origin of nervous activity can hardly be accepted as final, but the mere proposition of such a hypothesis illustrates the magnitude of difference between the very recent past and present. The older physiologists thought that each organic interactivity was due to nervous intervention. Today we believe that even the nervous correlationships themselves are affected by means of chemical agents."

During the past fifteen years physiologic investigations have definitely proven the statements made in the foregoing and there is no doubt there exists a group of chemical interactivating elements within the body tissues that while dormant are stimulated or activated for purposes of offense and defense, not by disease the result of bacterial invasion alone, but by poisons of every variety within the body whether of endogenous or exogenous origin. There is but little room to doubt that the phenomena of antitoxin and antibodies emanates from some modification of internal secretory functions. What could be more natural in the light of these established facts showing as they do the influence of internal secretory action upon trophic innervation, than that these secretions are undoubtedly intimately concerned in the maintenance of mental stability. The delicate balance of nutrition of such highly organized units as the cells of the central nervous system would, it would seem, be the first to respond to derangements of secretory functions, the nature of this response being dependent upon or governed by the hypo or hypersecretion of any one of these secreting structures or their failure to properly co-ordinate.

LITERATURE

1. Lewandowski (Inner Sekretion and Nerven System), Volume A.
2. Nawaczinski (Ber. Klin Woch. 1912).
3. Von Iselberg—Arch. F. Klin Surg., Vol. 100, p. 8.
4. Ott & Schott, Ott's Contribution to Phys., 1912.
5. Kidd (Rev. of Neurology and Psychiatry, January and February, 1913).
6. Foas—Arch. Ital. del biol., July 30, 1912.
7. Horsley—British Med. Journal, 1906, p. 323.
8. Eppinger.
9. Bannamener & Badolle—Revue de Med., Paris, December, 1913.
10. Szabo—Zeitsch, f. d. ges Neural u phychiatry, 1913, Vol. XVII, p. 45.
11. Beidl—Internal Secretory Organs. Page 23, 1913. Wm. Wood & Co., New York.

Iritis

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Read before Golden Belt Medical Society, Salina, Kansas, October 5, 1916.

This important condition, while not very frequent, is one which we are apt to find at any time in general practice, and is frequently overlooked until great damage is done. Iritis uncomplicated with a cyclitis is rare, but inasmuch as we do not see the ciliary body we cannot, therefore, distinguish the two conditions except by their symptoms.

The symptoms of iritis are partly due to the hyperemia of the iris and partly to the exudation. Hyperemia manifests itself by causing a blue or gray iris to appear greenish, a contracted sluggish pupil and slow response to atropin. These symptoms may be without exudation and according to Fuchs would not be an iritis, but would be hyperemia of the iris. The causes are the same as in an actual iritis, but it does not progress far enough to cause an active inflammation and consequent exudation. Exudation gives us what is known as a plastic iritis or by some termed an iritis differentiated from hyperemia of the iris. In this condition we have a scant fibrinous exudate deposited on the anterior or posterior surface of the iris. The pigment layer at the edge of the pupil thereby becoming adherent in places to the capsule of the lens and causing a sluggish immobile pupil.

Exudation in the anterior chamber gives the aqueous a turbid look against the dark background of the pupil, gradually the constituents of this exudate sink to the bottom of the chamber and form what is known as hypopyon. If the exudate be-

comes organized we may have a blocking of the pupil and consequent loss of vision or occlusion of the pupil. In recurrent attacks circular adhesions may form between the lens and the iris and destroy communication between the posterior and anterior chambers, giving us what is called seclusion of the pupil or annular posterior synechia. In such cases the iris bulges forward from the tension of the aqueous that collects in the posterior chamber causing what is known as "ballooned" or "umbrella" iris. This is a very serious condition and, unless an artificial pupil is formed at once by iridectomy and communication re-established between the chambers, vision will be permanently lost.

Exudation into the posterior chamber gives adhesions of the iris and capsule of the lens, "posterior synechia," and develops when inflammation is as its height, and when the pupil is most contracted and these synechiæ remain after the iritis has run its course, giving the pupil an irregular outline more clearly demonstrated with atropin.

Symptoms: The patient complains of intense pain radiating over the head and face (often mistaken by the laity for neuralgia), pain worse at night, lacrymation, photophobia (abnormal intolerance to light) and dimness of vision. In some cases the subjective symptoms may be light and the patient not consider it serious enough to consult a physician until great damage is done.

Objective Symptoms: Pericorneal injection, haziness of the pupil, loss of luster of the iris, and contracted, distorted or unsymmetric pupil, and hyperemia of the optic nerve.

Iritis without complications will usually have a course of from two to four weeks, but we rarely find them uncomplicated. Permanent adhesions or synechiæ of the iris by the organized exudate between it and the lens capsule are often left behind and it was formerly thought caused the recurrence of the iritis, but now the best authorities agree that the systemic condition which caused the disease originally is what causes the recurrence.

Etiology: The conception of the causative factor of iritis has undergone such a radical change in the last couple of years that unless one happens to have read the very recent literature on the subject he commences to think of syphilis just about as soon as he sees the iritis.

Examinations of infectious foci and of the blood are giving us a new view of the nature and cause of iritis. Laboratory tests have been made of the blood from apparently normal and actually febrile patients with presence of bacterial foci, and bacteria found in both, indicating that direct localization of the organism may be responsible for the lesion, or a slight or severe trauma occurring to the eye which would favor a development of iritis, such as the lodging of bacterial emboli during the hyperemia. Iritis following operations in which there has been some slight trauma of the eye but no outside infection are accounted for in this manner.

Rosenow[1] conducted a series of experiments with animals in which intravenous injections of streptococci from various sources such as rheumatism, appendicitis, cholecystitis, herpes Zoster, pyorrhea, tonsillitis, etc., were made and various ocular lesions were observed, such as unilateral panopthalmitis, conjunctivitis, corneal ulcer and iritis or iridocyclitis. He considered this localization as not due to accident and suggests that above the ciliary body of the iris there is a gradation from an abundant to a poor blood supply and consequently of oxygen, predisposing to the localization and growth of bacteria.

Irons, Brown and Nadler[2] have produced iritis in rabbits by intravenous injection of streptococci isolated from a focus of infection in a patient suffering with iridocyclitis. Clinically the above experiments have been borne out.

Irons and Brown[3] in a careful analysis of one hundred cases of iritis from both dispensary and private practice shows the following: In thirty-nine cases syphilitic infection had occurred either recently or years before, sixteen of the thirty-nine had had some other infection present besides syphilis, and some of these had had antisyphilitic treatment previously without results, three of which had had their iritis subside quickly after draining of alveolar abscesses, in eighteen cases dental infection was regarded as the source, in sixteen the tonsil was clearly the source, in nine male patients the gonococci, tuberculosis in eight, sinus infection in three, combined infection in seventeen in whom several infections were present, and not enough evidence to clearly demonstrate the one responsible, but in these seventeen the result of treatment directed toward elimination of the infection was remarkably good.

From clinical study and experiments above enumerated it would seem that in the production of iritis a great many fac-

tors are concerned, among which may be noted the presence of foci of infection in which bacteria may live and multiply, partially protected from the resisting forces of the host. The periodic entrance into the blood stream of these organisms, and the lodgment in the eye either by reason of their great numbers as in sepsis, or by embolism, or in susceptibility of the ocular tissue owing to previous injury, also errors of refraction, may give rise to iritis.

Therefore what was once called idiopathic iritis has now been demonstrated to be the result of some systemic dyscrasia although the iritis may be unilateral. All authorities agree that syphilis is the most common cause, but others are tuberculosis, rheumatism, gout, gonorrhea, diabetes, nephritis, and infectious fevers, but often the explanation we receive is "catching cold in the eye."

Treatment: The important thing in the treatment primarily is to prevent or overcome adhesions of the iris, and it so frequently happens that we do not see the patient until this has occurred, and even if we do we are apt to overlook the condition if the subjective symptoms are slight, and treat it as some minor affection, thereby losing valuable time during which irreparable damage may be done. The pupils should be immediately dilated by atropin and kept so during the course of the disease. Of course caution must be exercised in using it with people 45 or past, or with others with increase interocular tension. Heating the atropin sometimes makes it act better, or the previous installation of a cocaine solution may aid in its action. We should try and get a careful history of the case, particularly as regarding the systemic conditions, and should diligently search for the source of infection, and if a localized infection is found get rid of it as quickly as possible. In considering the above reports of Rosenow, Irons, Brown and others, vaccines immediately suggest themselves, and will no doubt play an important part in our treatment, and as advances are constantly being made in vaccine therapy we can hope for much help from it in this and in other ocular lesions. We should make careful search for evidence of syphilis either present or remote and even though it be not demonstrated, iodides, mercurials and salicylates are of great value along with other treatments. Tuberculin injections are recommended in case tuberculosis is demonstrated.

Mercurial inunctions to the brow preceded by hot bath and profuse diaphoresis are highly recommended if used early. Hot applications aid much in relieving pain, but morphine or other analgesics may be required during the acute stage.

Iridectomy is not indicated in the acute stage except if there is occlusion of the pupil or circular synechiæ, but it may be performed to break down adhesions after the inflammation has subsided, but the most important thing is to treat the underlying cause and a recurrence is not probable.

LITERATURE

1. E. C. Rosenow—Iritis and Other Ocular Lesions of Intravenous Injections of Streptococci in the Eye. Journal Infect. Dis., September, 1915.
2. Irons, Brown & Nadler—Localization of Streptococci in Eye. Journal Infect. Dis., 1916.
3. Irons & E. V. L. Brown—Etiology of Iritis. Journal A. M. A., June 10, 1916.

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Health Insurance

Fredonia, Kansas, March 16, 1917.

To the Editor: There is so much being said and written these days about health insurance that the views of a small town physician seems to me would not be amiss.

Kansas, an agricultural state, with no large cities, will not be affected for some time; yet it would be well for us to think about the matter, as the question seems to be acute in some states, notably Pennsylvania and New York.

The physician has long borne a heavy burden taking care of the poor and poorly paid. The whole thing hinges around one thing, viz.: "The great mass of laborers do not get their fair share of the things they produce" and society is trying to shift responsibility for the poor sick to the shoulders of the M.D.

Pay men what they earn and they will select and pay their own physician. There is no question that the poor are yearly becoming poorer in spite of our immense national wealth, and property and money are rapidly passing into the hands of the comparatively few.

When a country like the United States finds it necessary to put into effect compulsory health insurance, it admits that its present form of government is failing to protect the weak from the strong. We are apeing the paternalistic governments of overcrowded Europe. One by one the underpinning of the sterling American manhood we like to brag about is being trampled in the mire, and soon the laborer will have no self respect left.

When fifty per cent of the population of the great and wealthy state of New York are so poorly paid that they cannot

employ a physician of their choice for an ailing wife or a dying baby, the thoughtful should pause and ask, "Whither are we drifting?"

A small town doctor must make at least $3,000 per year, and should make twice that, if he is to have the necessary equipment, new books, medical journals, and an occasional visit to some medical center. And I understand a "health insurance physician" could not hope to make $3,000 or $4,000. The doctor must, without doubt, degenerate into an overworked, underpaid and incompetent physician. Young men of brains will not spend the years and money necessary to become members of such a profession.

Another matter is the whole time health officer, when the people are educated to the point where they demand prevention medicine. There are about 4,500 counties in the United States and each should have a whole time health officer. A large number of small cities under 25,000 could profitably employ a whole time health officer.

The question is, should these offices be filled by M.D.'s? They would be attracto some extent. They should pay $1,800 to $3,000. I maintain the first prerequisite is that the whole time health officer should be a physician; but he should have other qualifications. He could acquire the necessary "other qualifications" much easier than a non-medical man.

Take a large health department and the health officer would be more of an administrative officer and the necessity of his being an M.D. would not be so great. But the small health department, say with 15,000 to 50,000 people in his jurisdiction, there is where the M.D. would show his true worth as health officer.

Massachusetts Tech has a course leading to degree of Doctor of Public Health, and I understand it is a most complete and admirable course.

When the country is sufficiently educated to employ some 4,500 whole-time health officers, the medical profession should be ready with the necessary number of M.D.'s who have had special work such as is given by the Massachusetts Tech, but his course need not be so long as the non-medical matriculant.

No finer body of men exists than those of the U. S. Public Health Service, and their experiences, investigations, and successes are indelibly written in the annals of preventive medicine.

The regular medical profession has been responsible for every advance in preventive medicine. Mentioning only a few, the Panama Canal Zone, Cuba, yellow fever and malaria mosquito, typhus—oh, what's the use?

Now, isn't it reasonable to suppose that the profession that has done all this and more, contains the talent and tact to run a health department? You wouldn't expect an appointment to the chair of surgery or of otology or bacteriology in Johns Hopkins unless you were something more than an M.D. You would be a specialist in that particular line, and so should the M.D. be a specialist on public health if he expects to be a whole time health officer.

As an example, a small health department whose budget is less than $1,000 per year for all purposes, and where the county health officer receives possibly $400 per year. In this county the fumigating is either done by the attending physician or by a man who is employed by the county health officer and who has had a good deal of experience in fumigating.

We carry on a propaganda of education through the newspapers, writing numerous articles during the course of a year, which are printed in four or five of our leading newspapers. We get out bulletins twice monthly to the junior health officers and do various other work of a sanitary and hygienic nature.

We are often called upon to settle questions of diagnosis, not because the attending physician is incompetent to make the diagnosis, but because calling in the health officer often saves him from the displeasure of the family at being quarantined.

We are called upon continually to advise teachers and others whether or not Johnny or Willie or Mary should be sent home because of the pink-eye or a "breaking out," or what not.

It is often necessary for the health officer to visit these schools and other places and make his decision on the spot. There is so much of a medical nature for a health officer to do in a county of 20,000 or 25,000 people that I cannot, for the life of me, see how the sanitary engineer or anyone else not an experienced physician, could cope with the situation.

After all, it is the local inhabitants who pay the expenses, and in my judgment it would not be at all satisfactory in Kansas to employ non-medical men as health officers. Not only would the cream of our citizens object, but you would have a hard time convincing physicians that they

should take orders from a fellow who has had a short course in building sanitary closets, draining swamps, advising regarding plumbing, ventilation, and a few things like that. They are incompetent, in my judgment, to cover the broad field that a health officer must necessarily cover.

I am not backing any incompetent physician for this work, but an M.D. of some experience should certainly be absolutely necessary before even considering him for a whole time health officer.

Among our 150,000 physicians in the United States and 2,000 or 3,000 new graduates every year, certainly a sufficient number might easily be found who would, with some additional training, make ideal health officers. Does the health department need an expert chemist? Employ one. A bacteriologist? Employ one. A sanitary engineer? Employ one.

Some of our prominent physicians and our progressive medical journals seem to think that it is not at all necessary that a health officer be a physician, and they give printed examples of their belief. Others who are perhaps as well qualified to speak, either don't speak or their contributions are not printed. With osteopaths dispensing morphine and doing tonsillectomies, with chiropractors, who were recently barbers, on every hand, mental healers, etc., with the unjust workmen's compensation law in Pennsylvania and other states, the M.D.'s should stand together and demand a fair shake. We have too many of the R. C. Cabot brand now, and the little fellow who constitutes the rank and file must be heard from, or rather he must make himself heard.

I have my fingers crossed while writing this, because I wouldn't have any job as whole time health officer that the State of Kansas could possibly give me.

E. C. DUNCAN.

From The Prodigal

Editor Journal of the Kansas Medical Soicety, Topeka, Kansas.

Dear Sir: The Prodigal has been rummaging back in memory's depository a quarter of a century and finds that you, Mr. Editor, was at the accouchment of the Kansas Medical Journal, now deceased. The Journal made its first appearance in Topeka one morning in May, 1889, or twenty-eight years ago next May. W. E. McVey was the "Publisher and General Manager" and the "Editorial Committee" was Dr. W. L. Schenck of Osage City, Dr. S. G. Stewart and Dr. J. E. Minney of Topeka. The following was the heading of and introduction to the new-born venture, together with a synopsis of the first paper published in the Journal by Dr. Reid Alexander. The paper shows that there was something doing in surgery in Kansas in those days and that results were obtained.

"OUR BOW"

" 'Much study is a weariness to the flesh and of making books there is no end.' The above comment was made some years ago and holds good today. Weariness of the flesh and a large quantity of midnight oil are adjuncts to success in business or a profession. A profession, as a whole, is what the individual members make it. The standard by which a profession is judged is its literature. Not necessarily by its rhetoric, so called, but by the practical information contained therein.

"Books contain the history of human progress, in medicine as well as in the arts and sciences. Periodicals precede books in heralding the new discoveries and advances in medicine. Hence, it is found that the statement of the son of David is correct, but the interpretation of it is a matter of taste. The same authority says, 'Children cannot be brought forth without travail.' Children continue to be brought forth. The world could not prosper long without them. The result justifies the *pains*. Many times they come unsolicited, but not without a cause. This periodical has come into existence unsolicited, but not without a cause. It has been founded at the solicitation of numerous friends. By its beaming countenance it will be seen that no rankling jealousies have called it into being. There are no friends to reward or enemies to punish. But believing that the prevention and cure of disease, the preservation of health and life, and the full and harmonious development of physical, intellectual and moral man are among the great interests of humanity, and that in every great state those devoted to interests so important should have a convenient medium for the interchange of thought and the promulgation of medical knowledge, we have established the Kansas Medical Journal. We desire to make it worthy of the profession and of the state, and not only to be the means of disseminating what is new and valuable in medicine, but of binding into closer and more kindly relations the members of the profession. With these ends steadily in view, we believe the Journal will deserve and receive the sympathy and support of an honorable and

noble profession. We solicit for publication papers read before state and local societies, and cordially invite physicians in Kansas and elsewhere to contribute to its columns. To our confreres of the medical press we proffer an open hand, and ask a kindly welcome."

The title of the first paper published in the Journal and on the first page was "Primary Synchronous Triple Amputation," by Reid Alexander, M.D., Topeka, Kansas.

Synopsis of Dr. Alexander's paper:

"Patient twenty-two years of age, American, single, brakeman, while switching cars at Maple Hill, Kansas, fell under the cars. Upon examination I found the distal half of the right forearm, the wrist, and a part of the hand completely crushed. The cars were moving slowly at the time of the accident and this no doubt intensified the injury.

"The right limb was almost severed from the body about four inches above the knee, the soft tissues being torn for some distance above this point, and the lower third of the femur comminuted, the fractures extending into the knee joint and a part of the articulating surface of the bone was exposed. The wheels had passed obliquely across the left ankle, including about three inches of the lower third of the leg, crushing the bones and lacerating the soft tissues in their course. The heel was connected with the foot only by a part of the skin on the outer side of the ankle. There were also additional injuries in the form of several contusions upon the back and head, but were superficial and all healed rapidly, except one situated over the lower part of the spine, which became inflamed by pressure in bed and sloughed on the surface. He was placed on the operating table (twenty-four hours after the injury and recovery from shock), etherized, and the limbs were removed in the following order: The right arm about three inches below the elbow; the right thigh at the junction of the upper and middle third; and the left leg at the junction of the middle and lower third. There was complete recovery in eight weeks."

"Dr. John Ashurst, Jr., of Philadelphia, in reporting a case to the College of Physicians and Surgeons, on which he had operated in November, 1887, stated that he was able to find only four other successful cases in literature."

A number of physicians and surgeons of Topeka and the state will remember the case and the nurses at Christ Hospital at the time, where the operation was performed.

Dr. Alexander was a young man of pleasing address, a tireless worker, and of great professional ability. He gave promise of long life and of a brilliant career. But alas, that grim reaper whose name is Death called him at the age of thirty-four years.

He answered the call unflinchingly and now is awaiting us where "mortal spirits tire not, neither do they faint, in that bourne from which no traveler returns."

J. E. MINNEY,
2273 West Twentieth Street.

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Cardiovascular Disease

Leon Bloch, Chicago (Journal A. M. A., March 3, 1917), says that the examination of spinal fluid in cardiovascular disease was suggested to him by the finding of a positive spinal fluid Wassermann in a man who had aortic aneurysm, bilateral optic neuritis, and pupillary inequality, with a negative Wassermann test. The spinal fluid showed also positive Nonne and Noguchi tests with a high cell mount, consisting mainly of lymphocytes. These evidences of meningeal inflammation, first described by Ravaut, are now accepted without controversy. The cases which he here reports consisted of twenty-two out of about 200 found within the last year in the service of Dr. Williamson and himself at the Cook County Hospital. Among these twenty-two patients, five had aortic aneurysm; one, abdominal aneurysm; four, aortic regurgitation; nine, myocarditis in various stages of decompensation; two, hypertension, and one, angina pectoris. Only four of the entire series admitted syphilitic infection. A positive spinal fluid Wassermann test was obtained in seventeen cases. These included four of aortic aneurysm; three of aortic regurgitation; eight of myocarditis, and the one case of angina pectoris. His summary is as follows: "1. Positive Wassermann tests have been obtained in the spinal fluid in seventeen out of thirty selected cases in which the blood Wassermann test was negative. 2. In five of those cases in which the spinal fluid Wassermann test was negative, either lymphocytosis or a positive Nonne or Noguchi test has been found. 3. Spinal fluid examination, as a result of these findings, would seem to be of value in cardiovascular diseases, when syphilis is suspected and the blood Wassermann test is negative."

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

ASSOCIATE EDITORS — C. W. REYNOLDS, C. C. GODDARD, HUGH B. CAFFEY, O. P. DAVIS, W. E. CURRIE, E. S. EDGERTON, K. P. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, E. M. CARTER.

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The A. M. A. Meeting

Much of the pleasure in attending meetings of the A. M. A. is in the agreeable associates and pleasant associations on the trip to and from the place of meeting. This is especially true when the distance is considerable as it will be this time.

It has been the custom to arrange for special cars and special trains from various section of the country for these meetings, so that a congenial company may always be gathered together for the trip. For the coming meeting of the A. M. A. in June, the Atchison, Topeka & Santa Fe has been designated the official route by the Southwest District Medical Society and the Missouri Valley Medical Society.

The Annual Meeting

The fifty-first annual meeting of the Kansas Medical Society will be held in Salina on Wednesday, Thursday and Friday, May 2, 3 and 4. The first session will be held on Wednesday morning and the program continued throughout the day. On Wednesday evening an entertainment will be given in Convention Hall for the visiting physicians and their wives. Thursday has been set aside for addresses by men of national reputation and the following have accepted the invitation to address the society: Dr. John Ridlon, Chicago; Dr. Charles A. L. Reed, Cincinnati; Dr. Charles Louis Mix, Chicago; Dr. Philip H. Kreuscher, Chicago; Dr. Daniel N. Eisendrath, Chicago; Dr. P. T. Bohan, Kansas City. On Thursday evening the Saline County Society will give a smoker to the visiting physicians. On Friday morning the regular program of the society will be resumed and continued until completed.

The doctors' wives of Salina have arranged entertainment for the visiting ladies. Wednesday afternoon, starting from the Lamer Hotel at 2:30, there will be an auto ride and a picture show. The ladies will attend the entertainment at Convention Hall in the evening. On Thursday afternoon there will be an Informal Afternoon at the Country Club.

Doctors who attend the meeting in automobiles will find an abundance of accommodation for their cars at the various garages.

Physicians arriving in the city without accommodations are advised to go direct to Convention Hall and register, and if not located provision will be made for them.

The three principal hotels are The Lamer, The Clayton and The Planters. These hotels can accommodate 250. Each hotel has a list of rooms for overflow. It is urgently requested by the hotel people that reservations be made in advance.

For the convenience of members we print below a time table of trains arriving and leaving Salina.

The official program of the meeting is printed in full in this number.

RAILROAD TIME TABLE—DEC. 18, 1916

Santa Fe Phone 93 Rock Island Phone 31
U. Pac. Phone 10 Mo. Pacific Phone 54

UNION PACIFIC—MAIN LINE

East Bound

102 St. Louis Limited ..... 3:42 a.m.
104 Atlantic Express .....11:10 a.m.
170 Oakley-Kansas City ..... 3:25 p.m.

West Bound

103 Pacific Express ..... 4:20 p.m.
119 Denver Limited .....11:27 p.m.
169 Kansas City-Oakley ..... 7:20 a.m.

Beloit Branch

111	Passenger arrives	12:05 a.m.
112	Passenger leaves	3:00 p.m.

PLAINVILLE BRANCH

108	Passenger arrives	10:10 a.m.
107	Passenger leaves	4:40 p.m.
585	Motor leaves	7:10 a.m.
183	Mixed leaves	8:50 p.m.
184	Mixed arrives	4:30 p.m.
134	Motor arrives	7:40 p.m.

M'PHERSON BRANCH

181	Mixed leaves	8:40 a.m.
582	Motor arrives	9:35 a.m.
584	Motor arrives	2:55 p.m.

182	Mixed arrives	4:10 p.m.
581	Motor leaves	11:10 a.m.
583	Motor leaves	4:30 p.m.

MISSOURI PACIFIC

4	Kansas City-Hoisington	9:35 a.m.
404	Wichita Plug arrives	9:10 p.m.
403	Wichita Plug leaves	6:15 a.m.
3	Colorado Express	5:20 p.m.

SANTA FE

318	East Bound leaves	8:15 a.m.
317	West Bound arrives	10:40 a.m.
320	East Bound leaves	11:20 a.m.
319	West Bound arrives	3:05 p.m.

ROCK ISLAND

354	Passenger leaves	10:10 a.m.
322	Freight arrives	12:45 p.m.
321	Mixed leaves	1:50 p.m.
353	Passenger arrives	6:40 p.m.

SALINA NORTHERN

Leaves		8:30 a.m.
Arrives		4:15 p.m.

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Aspirin Idiosyncrasy

A girl, 18 years of age, was given five grains of aspirin. About two hours, or two and a half hours, later the right eyelids suddenly became swollen and in a few moments the tongue was red and swollen and speech thick and difficult. Shortly afterward—about one-half hour—the left eyelids became swollen and vision was much obscured. The swelling in the tongue and mouth increased and there was some edema of the glottis with considerable dyspnoea. The symptoms all gradually disappeared. The patient had had similar symptoms after taking aspirin a year prior to this.

Dr. Henry Everett Hays

Dr. Henry Everett Hays, University Medical College of Kansas City, 1900, aged 40, Fellow of the American Medical Association, health officer of Harper County, local surgeon Santa Fe, died at his home in Attica, March 11, from chronic interstitial nephritis.

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Program of the Fifty-First Annual Meeting of the Kansas Medical Society

Wednesday, May 2—9 a.m.

President's address — Dr. J. W. May, Kansas City.

"Placenta Praevia," Dr. W. E. Currie, Sterling.

Discussion opened by Dr. H. R. Ross, Sterling.

"Indication for the Use of Forceps," Dr. W. A. Gartner, Troy.

Discussion opened by Dr. L. W. Shannon, Hiawatha.

"Forceps Operation in Obstetrics," Dr. W. C. Zugg, Great Bend.

Discussion opened by Dr. Charles Brown, Basehor.

"Painless Jaundice," Dr. L. F. Barney, Kansas City.

Discussion opened by Dr. J. N. Ketchersid, Hope.

"Jaundice in the New Born," Dr. Milton Hahn, Arkansas City.

Discussion opened by Dr. H. L. Aldrich, Caney.

"The X-Ray in Medicine; Its Use and Abuse," Dr. J. N. Deiter, Abilene.

Discussion opened by Dr. R. C. Hartman, Newton.

"Fractures of the Lower End of the Humerus," Dr. J. F. Hassig, Kansas City.

Discussion opened by Dr. C. C. Nesselrode, Kansas City.

"Fracture of the Pelvis," Dr. W. C. Lathrop, Norton.

Discussion opened by Dr. L. H. Munn, Topeka.

"The Action and Use of Sodium Chloride," Dr. J. S. Sutcliff, Iola.

Discussion opened by Dr. J. W. Light, Kingman.

"The Intra-Ventricular Treatment of Syphilitic Optic Nerve Atrophy," Dr. W. L. Rhodes, Kansas City (with report of cases).

Discussion opened by Dr. M. F. Jarrett, Ft. Scott.

"Gonorrhea in Women," Dr. H. E. Doty, Concordia.

Discussion opened by Dr. M. Trueheart, Sterling.

"Some Difficulties in the Surgery of the Upper Abdomen," Dr. Hugh Wilkinson, Kansas City.

Discussion opened by Dr. E. E. Liggett, Oswego.

"Cholecystectomy vs. Cholecystotomy in Gall Bladder Infections," Dr. George M. Gray, Kansas City.

Discussion opened by Dr. C. E. Bowers, Wichita.

"Cholecystectomy," Dr. H. L. Charles, Atchison.

Discussion opened by Dr. C. Klipple, Hutchinson.

"Surgery of the Gall Bladder," Dr. R. C. Dugan, Ottawa.

Discussion opened by Dr. C. S. Campbell, Coffeyville.

"Mastoiditis with Intracranial Complications," Dr. E. N. Robertson, Concordia.

Discussion opened by Dr. J. F. Gsell, Wichita.

"External Bone Clamp," Dr. C. W. Hall, Hutchinson.

Discussion opened by Dr. F. F. Foncannon, Emporia.

"Excision of Hemorrhoids Under Local Anesthesia," Dr. E. E. Morrison, Great Bend.

Discussion opened by Dr. M. F. Russell, Great Bend.

Thursday, May 3—9 a.m.

"Congenital Dislocation of the Hip," Dr. John Ridlon, Chicago.

"Some Recent Adaptations of Intestinal Surgery," Dr. Charles A. L. Reed, Cincinnati.

"Duodenal and Gastric Ulcers," Dr. Charles Louis Mix, Chicago.

"Metastatic Joint Infection," Dr. Philip H. Kruescher, Chicago.

"Recent Progress in the Surgery of Gall Bladder and Bile Passages," Dr. Daniel N. Eisendrath, Chicago.

Dr. P. T. Bohan, Kansas City, Mo.—Subject not received.

Friday, May 4—9 a.m.

"Discussion of Asthma as a Symptom and Disease," Dr. Theo. Kroesch, Enterprise.

Discussion opened by Dr. R. C. Lowdermilk, Galena.

"Report of Some Unusual Cases of Appendicitis," Dr. Virgil Morrison, Atchison.

Discussion opened by Dr. D. W. Basham, Wichita.

"The Relationship of Gastric Ulcer to Malignancy," Dr. Albert Smith, Parsons.

Discussion opened by Dr. J. T. Axtell, Newton.

"A Plea for More Thorough Medical Training," Dr. W. D. Webb, Atchison.

Discussion opened by Dr. M. T. Sudler, Lawrence.

"Diagnosis and the Reporting of Disease," Dr. J. J. Sippy, Topeka.

Discussion opened by Dr. C. W. Cole, Norton.

"Disorders in Children Due to Faulty Metabolism," Dr. H. J. Stacey, Leavenworth.

Discussion opened by Dr. C. F. Menninger, Topeka.

"Pink Eye," Dr. O. R. Wolfe, Beverly.

Discussion opened by Dr. W. R. Heylmun, Iola.

"Sporotrichosis," Dr. R. C. Henderson, Erie.

"Some of the Prescriptions I Have Seen," Dr. F. H. Smith, Goodland.

Discussion opened by Dr. D. R. Stoner, Quinter.

"The Busy Doctor's Laboratory," Dr. V. J. Funderburk, Ogallah.

Discussion opened by Dr. C. H. Jamieson, Hays.

"Use of Boiling Water Injections in Elderly Cases of Exophthalmic Goiter," (with report of cases), Dr. F. A. Trump, Ottawa.

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National Conference of Charities and Corrections

A realization of the importance of health seems to have spread through the program of the National Conference of Charities and Correction like an infection. The outline of discussions at the forty-fourth annual meeting of the organization, to be held at Pittsburgh June 6-13, has just been issued from the permanent office at Chicago. The division on health will be under the chairmanship of Prof. C. E. A. Winslow of Yale University, and the vice chairmanship of Dr. H. M. Bracken, secretary of the Minnesota State Board of Health.

The modern public health program will be featured by the chairman in his address. This idea seems to characterize also the discussions scheduled to occur at four other meetings under his direction. "What the Social Worker Has Done for Public Health" will be the topic of Homer Folks, of New York, a former president of the National Conference.

The campaign against infant mortality will be brought to the attention of the conference by Miss Julia C. Lathrop of the

Federal Children's Bureau, and Dr. Chas. E. Terry, late health officer of Jacksonville, Fla. Professor Graham Lusk, of Cornell University Medical College, will speak on hygiene and economy in diet. Co-ordination of health activities appears prominently in the program outline. Three phases will be presented, respectively, by Franz Schneider, Jr., and Gertrude Seymour, of New York, and Wilbur C. Phillips, of Washington; the apportionment of the health budget, the relation between social workers and public officials and the health center plan. Another session will be devoted to public health nursing.

"The United States is the only great industrial nation without compulsory health insurance," Professor Irving Fisher has said recently. In view of this need, the National Conference has provided an entire division on the subject of social insurance for its meetings at Pittsburgh. The chairman of this series of discussions is Max Senior, of Cincinnati. The program has been arranged to occur the latter part of the conference period so as to accommodate medical men who attend the meeting of the American Medical Association in New York.

The section on mental hygiene will convene under the chairmanship of Dr. Owen Copp of Philadelphia. His speakers include Dr. Stuart Paton of Princeton, Dr. E. E. Southard and Dr. Harry C. Solomon of Boston, Dr. C. Macfie Campbell of Johns Hopkins University, Dr. A. J. Rosanoff of New York, and Dr. E. Bosworth McCready of Pittsburgh.

In other divisions of this extensive program there will occur discussions of illegitimacy, of diagnosis of crime, of state aid to dependent mothers and of negro migration to northern cities. There will be separate meetings of groups interested in hospital social service, in social hygiene, and in anti-tuberculosis work. It is likely also that a special housing institute will be held.

The conference at Pittsburgh will continue for one week. Thirty-five hundred delegates are expected to attend. The president is Frederic Almy, secretary of the Charity Organization Society of Buffalo. The prevention of human distress through the operation of all sorts of agencies has been adopted as the main topic of the meeting.

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An old remedy for sore and cracked nipples is an ointment made of equal parts of castor oil and subnitrate of bismuth.

Program for the School of Physicians, Health Officers and Public Health Nurses

APRIL 16 TO 27, INCLUSIVE, 1917.

The seventh annual school for physicians, health officers and public health nurses will be held during the two weeks beginning April 16, to and including April 27, 1917. The first week's work will be in effect a postgraduate course for physicians in the fundamentals of the medical sciences, with hospital clinics every forenoon at Bell Memorial Hospital, Rosedale; St. Margaret's Hospital, Kansas City, Kan.; and the General Hospital, Kansas City, Mo. On Monday, April 23, the second week of the course, the distinctively public health week, will be given under the auspices of the School of Medicine and the State Board of Health.

For the first time this year a section devoted to instruction of public health nurses will be established and conducted by distinguished specialists in public health work.

On each forenoon of the two weeks of the school clinics will be given in Bell Memorial Hospital and the dispensary, by the attending staff, for physicians and health officers in attendance.

For the public health nurses each forenoon will be devoted to a school of instruction by experts of national reputation.

The afternoon of this second week of the course will be devoted to distinctively public health work. Joint sessions of the public health officers and public health nurses will be held to be addressed by distinguished sanitarians, secured from the United States Public Health Service and other state boards of health, together with the chiefs of divisions of the Kansas State Board of Health.

These two weeks' instructions are absolutely free to any physician or public health nurse in the state.

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Assistant Physician Wanted

The Department of Justice has reached the conclusion that Dr. Yohe (institution physician) should have an assistant to be known as "Assistant Physician," and that a young doctor who is desirous of gaining varied experience should be obtained for this purpose. It is the Department's idea that this assistant physician should perform duties of the nature of an interne in the hospital, that he should live at the institution and be at all times at the penitentiary when Dr. Yohe is not there; in

other words it is deemed necessary to have a civilian medical service representative in the hospital for the full twenty-four hours.

The Department proposes to provide board and lodging in the institution and to pay a salary of $50 per month.

Applications for the position should be addressed: "The Warden, United States Penitentiary, Leavenworth, Kansas."

SOCIETY NOTES

LINCOLN COUNTY SOCIETY.

The Lincoln County Medical Society at its regular meeting, February 23, passed the following resolution:

Resolved: That this Society condemns the practice of admitting graduates of low grade schools into this state by reciprocating from some other state, when the requirements and standards of the school are so low as to bar them from taking the Kansas board, and unanimously endorses the article of Doctor Settle, of Reading, Kansas, in the January Journal, relative to this condition, and that a copy of this resolution be sent to the Kansas State Journal for publication and that the delegate of the Society be instructed to take this matter up at the annual meeting of the State Society.

Sincerely yours,
MALCOLM NEWLON, Secy.

DECATUR-NORTON COUNTY SOCIETY.

The Decatur-Norton County Society met in the Commercial Club rooms at Norton, March 20. The following program was prepared:

Sequelæ of Scarlet Fever, by Dr. I. L. Parker, Hill City.

Pyorrhea Alveolaris, by Dr. R. D. Wesley, Norton.

Pneumonia in Children, by Dr. F. H. Smith, Goodland.

Trials of the County Health Officer, by C. W. Cole, M.D., Norton.

Tonsillitis — Cause and Treatment, by Dr. F. E. Gaither, Lenora.

Public address, "Mistakes," by C. C. Goddard, M.D., Leavenworth.

STAFFORD COUNTY SOCIETY.

The Society met in St. John on March 14. The following members were present: L. E. Mock, J. H. Webb, F. F. Lemon, M. M. Hart, H. H. Miner, C. S. Adams, J. T. Scott, L. C. Haines, J. M. Haines.

There were case reports as follows: Mammary Hypertrophy, by M. M. Hart; Galactorrhea, by H. H. Miner; Acute Lobar Pneumonia with Fatal Hemorrhage in Lung, by C. S. Adams; Purpura Hemorrhagica, by J. H. Webb.

Dr. L. C. Haines read a paper on "The Treatment of Abortion and Miscarriage." The next regular meeting will be held in Stafford on the second Wednesday in April at 3:00 p.m. J. T. SCOTT, Secy.

BOURBON COUNTY MEDICAL SOCIETY.

The Bourbon County Medical Society met at the Library building, Fort Scott, March 19, 1917, at 8 p.m., with twelve members present. Visitors for the evening were Dr. F. M. McCallum, Kansas City, Mo.; Dr. J. M. McWharf, Ottawa, Kan., and Dr. S. C. Hatton, Prescott, Kan. Dr. F. M. McCallum read a very instructive and interesting paper on the diagnosis and treatment of vesical neoplasms. Dr. E. B. Payne, Fort Scott, presented for discussion a history of a case of lobar pneumonia. Discussions were rather limited on the first paper but very free on the subject of pneumonia.

Dr. J. F. McGill, Fort Scott, was elected to membership in the society. Drs. J. B. Robinson, Hiatville, and Dr. R. W. Lease, Redfield, Kansas, were restored to membership after a year's vacation from same. Two other applicants were denied membership in the society.

Committees were appointed and means discussed for caring for the meeting of the Southeast Kansas Medical Society, to be held in Fort Scott, Thursday, April 12, 1917.

There being no further business, the meeting was adjourned.

C. F. YOUNG, M.D., Secy.

MIAMI COUNTY SOCIETY.

The Miami County Society met at the State Hospital in Osawatomie on Friday, February 23. The program included the following papers: "The Cause of Intestinal Stasis," Dr. Charles C. Conover, Kansas City, Mo.; "Chronic Myocardial Degenerations," Dr. F. A. Carmichael, Osawatomie.

HARPER COUNTY SOCIETY.

Memorial Tribute to Dr. H. E. Hays.

Dr. H. E. Hays, a member of the Harper County Medical Society and county physician, died at Attica, March 11, 1917, at the age of 41 years.

It has seemed fitting that some memorial of the high regard in which Dr. Hays was held by his fellows be spread upon

the Society's records, printed in one or more of the county papers and in the Journal of the Kansas Medical Society, and a copy of the same sent to his bereaved family.

Dr. Hays was a very highly esteemed member of the medical profession. He had the confidence of his colleagues and was a strong supporter of medical organizations and could always be depended on to give of his time and best efforts to any of the society activities.

He had qualities, not only of the head but of the heart, which endeared him to those who knew him well.

Although his friends and associates had noted with anxiety his failing health, his untimely death, at the very height of a most successful and useful career, came to all as a profound shock.

In the death of Dr. Hays the Harper County Medical Society has lost a most valuable and beloved member and the community a splendid citizen.

J. R. BURNETT, M.D.
Sec'y Harper County Medical Society.

WYANDOTTE COUNTY SOCIETY.

The regular meeting of the Wyandotte County Society was held in the Carnegie Library, March 20. The following program had been arranged: "Dental Sepsis in Relation to Systemic Diseases," Dr. W. W. Duke; "The Treatment of Dental Infections," Dr. E. M. Hall.

The Wyandotte County Dental Society met with the medical society.

THE KANSAS HOSPITAL ASSOCIATION.

The annual meeting of the Kansas Hospital Association will be held in Salina on Tuesday, May 1.

LABETTE COUNTY SOCIETY.

The regular called meeting for election of officers of the Labette County Society met in Parsons, Kan., January 31, 1917, and the following officers were elected:

President, G. A. Landes; vice president, J. H. Henson; secretary-treasurer, J. G. Missildine; censor, H. C. Markham; censor to fill vacancy, R. M. Bennett; delegate, Albert Smith.

The February meeting was well attended and of unusual interest.

Dr. J. H. Henson, of Mound Valley, presented a very interesting heart case which brought forth considerable discussion.

J. G. MISSILDINE, Sec'y.

SHAWNEE COUNTY MEDICAL SOCIETY.

At the regular monthly meeting of the Shawnee County Medical Society, Monday evening, April 2, Dr. Kellogg Speed, Associate Professor of Surgery, Chicago, and on the attending staff of both Cook County and Mercy hospitals, gave a very interesting talk on "War Surgery." He also had a large number of slides showing the varieties and methods of treatment of the different cases. Dr. Speed, for six months during the summer of 1916, was in charge of the base hospital of the Twenty-third British Hospital Expeditionary Force in France. The hospital was near Arras, 35 miles from the front.

The hospital was located on the railway connecting with the northern part of France. All supplies for the British army and a small part of the French army pass over this road. So heavy was the traffic over this line that there was a three-minute train service, night and day. During the time of a big "push" the number of wounded men arriving at the camp varied from 200 to 800 during 24-hour periods. During the first three days of July, 1916—the battle of the Somme—1,542 men were received. During the month of July, 1916, over 5,000 wounded men were cared for at this one base hospital.

The patients were of all nationalities, from all parts of the globe. Many Americans were among the wounded, most of them being with the Canadian regiments. The American fighter was picked out from all others by salutation of the surgeons as "Doc."

The classes of cases varied. Much civil surgery was done, such as hernias and appendectomies. Venereal diseases were infrequent, but when encountered were sent to special hospitals devoted to their special treatment. The most frequent injuries were due to shrapnel, and the number of wounds received by individual soldiers varied from one to forty. Single wounds were not common. As soon as the injured soldiers were able to travel, they were sent to England.

The English soldier is well prepared for fighting. He is given a thorough course of training to develop his body, before being sent to the trenches. One instance was related of a soldier who had a gunshot wound in the thigh fracturing the femur. He laid for six days in "no man's land" without food or drink. In desperation he drank his ampule of iodine. Yet this soldier recovered good function of his

leg with but three-fourths inch shortening.

The army has now dispensed with the iodine ampule carried in the first aid package. Only a dry gauze dressing is used to cover the wound. All soldiers are given a prophylactic dose of antitetanic serum as soon as possible after they are injured. Dr. Speed, in his six months service, had but six cases of tetanus develop.

Of the injured cases received at the hospital, 7 per cent died, 80 per cent recovered entirely, many of them returning to the front, and the balance being able to carry on some work. Practically all of the remaining 13 per cent are hopeless clipples and invalids.

England has lost about 320 medical men, France a less number, Germany considerably more. The medical men do not go into the front line trenches.

Dr. Speed spoke of the splendid sanitation of the camp. No screens were used. He stated that during the summer he did not see a single fly.

England's army guards about 100 miles of the frontier. To supply this army she has built 160 hospital trains of eight cars each. These trains are equipped with officers' quarters, operating rooms, beds, and a full corps of surgeons and nurses. America has but one such train.

Although the hospital was but a short distance from the front, the fields of the entire neighborhood were in cultivation, the work being done by women. France has called every available man to the colors, and not a man of military age is seen unless he has been injured. Contrasted with this situation is England, where thousands of men in civilian clothes are seen on the streets. Yet England has raised a fighting army of over 5,000,000.

Some of the most serious cases the surgeons were called on to treat were those of "shell shock." Dr. Speed had an article on this subject in a recent issue of Leslie's.

At the close of the meeting the society extended a vote of thanks to Dr. Speed for his talk.

E. G. BROWN, Secretary.

MISCELLANEOUS.

New and Nonofficial Remedies

Tablets Sodium Chloride and Citrate—Squibb (Dr. Martin H. Fischer). Each tablet contains sodium chloride 1 gm. and sodium citrate 2 gm. E. R. Squibb & Sons, New York.

Optochin—Ethyl-hydrocupreine. A synthetic alkaloid closely related to quinine. It has the antimalarial and anesthetic action of quinine, but toxic symptoms, such as tinnitus, deafness, amblyopia or amaurosis (retinitis) are more liable to occur than with quinine. Investigations indicate that the drug may be of value in the treatment of lobar pneumonia, when its safe dosage has been determined. Reports indicate that the drug is of decided value in the treatment of pneumococcic infection of the eye (ulcus corneæ serpens). Optochrin is insoluble in water, but may be used in 1 to 2 per cent solution in a bland fatty oil or as an ointment. Merck & Co., New York.

Optochin Hydrochloride—Ethyl-hydrocupreine hydrochloride. The hydrochloride of optochin (see above). It has the therapeutic properties of optochin, but is soluble in water. For application to the eye and instillation into the conjunctival sac a freshly prepared 1 to 2 per cent solution in water is used. Merck & Co., New York. (Jour. A. M. A., March 3, 1917, p. 713.)

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Propaganda for Reform

Effect of Opium Alkaloids on the Ureters.—According to D. I. Macht, morphin and the opium alkaloids having a similar constitution increase the contraction and produce a greater tonicity of the ureter, whereas papaverin and the opium alkaloids constituted similarly produce a slowing or total inhibition of the contraction and relaxation of the tonus. In opium and pantopon, which contains the total alkaloids of opium, the effect of the morphin group preponderates. Ureteral colic is due to spasmodic contractions of the ureter caused by the irritating calculus and hence the use of papaverin or opium is more rational than that of morphin. Furthermore, the slighter toxicity of papaverin, its tonus lowering power and its local analgesic properties suggest its local application in spasmodic conditions of the ureter. (Jour. A. M. A., March 3, 1917, p. 719.)

Dating of Biologic Products.—For the protection of the consumer as well as the manufacturer, the Council on Pharmacy and Chemistry has adopted a rule requiring that serums and vaccines and similar products to be accepted for New and Nonofficial Remedies must bear on each package the date of its manufacture in addition to the date required by federal law. The practice now followed by manufacturers of placing on the containers of biologic products the date beyond which these

agents are not to be regarded as dependable (though in accordance with the federal law) has not been satisfactory. Except for diphtheria and tetanus antitoxin, in general there are no methods for determining the potency of serums and vaccines. At the present time, for the same material, one manufacturer will fix an expiration date of four months, others one year or even eighteen months. Obviously this lack of uniformity is unfair to the manufacturer who endeavors to supply a product as fresh as is commercially practicable and it also may lead the physician to form a false opinion regarding the potency of certain biologic products. The new rule of the Council will enable the physician to know the age of a given product when it reaches him and will permit him to judge whether or not it has been kept unduly long. Moreover, it will prove not only helpful to the conscientious manufacturer and the physician but will also safeguard the patient. (Jour. A. M. A., March 3, 1917, p. 728.)

Another Shortage of Salvarsan.—The indications are that the supply of salvarsan and neosalvarsan in this country has again reached the point of exhaustion. Congress, which made our patent law, has the power to suspend the patent on any preparation that the patentee is unable to or does not supply, when such suspension is in the interest of public health, and it should suspend the salvarsan patent. In the meantime it is to be hoped that the Dermatologic Research Laboratory of Philadelphia will again supply the product as it did during the previous salvarsan shortage. (Jour. A. M. A., March 19, 1017, p. 785.)

Ichthytar.—The Council on Pharmacy and Chemistry reports that Ichthytar was submitted by the Szel Import & Export Company with the claim that it was essentially similar to ichthyol in composition and superior to it in therapeutic properties. The statements that were submitted regarding its composition made it impossible to determine whether or not it was similar to or identical with ichthyol. No evidence was furnished in regard to its therapeutic value. On the basis of the available information the Council held the claims regarding composition and therapeutic value unsubstantiated and ichthytar ineligible for New and Nonofficial Remedies. (Jour. A. M. A., March 10, 1917, p. 796.)

Succus Cineraria Maritima.—In agreement with the report of the Council on Pharmacy and Chemistry holding the claims made for Succus Cineraria Maritima (Walker) unfounded, the federal government charged that the claim that by dropping this preparation into the eye cataract may be cured was false and fraudulent. In February, 1916, the Walker Pharmacal Company pleaded guilty. Since the government's prosecution, brought under the Food and Drugs Act, affects only the claims made on the trade package of a preparation, the admittedly false claims were still made in circular letters sent to physicians as late as October, 1916. (Jour. A. M. A., March 17, 1917, p. 864.)

Rheume Olum.—The Council on Pharmacy and Chemistry reports that Rheume Olum (the Rheumeolum Chemical Co., Seattle, Wash.) is said to be composed of camphor 7 per cent, chloral hydrate 7 per cent, menthol 2⅛ per cent, methyl salicylate 25 per cent, oil cajuput 2½ per cent, oleoresin capsicum, lanolin, white wax, "q.s." The Council found Rheume Olum unacceptable for New and Nonofficial Remedies because the amount of the potent oleoresin of capsicum was not declared, because unwarranted therapeutic claims were made, because the name was nondescriptive of its composition and therapeutically suggestive and because the fixed formula was considered irrational. (Jour. A. M. A., March 17, 1917, p. 865.)

Control of Intestinal Bacteria.—A recent investigation indicates that the direct feeding of bacterial cultures of lactic acid producing organisms had almost no influence on the intestinal flora. On the other hand the administration of milk sugar (lactose) brought about a marked change in the intestinal flora. It appears therefore that the beneficent action of milk cultures is dependent on the lactose and not on the bacteria which they contain. (Jour. A. M. A., March 24, 1917, p. 918.)

Betaine Hydrochloride.—It contains 23.8 per cent absolute hydrochloric acid and 8 grains corresponds to about 18 minims of diluted hydrochloric acid. In solution betaine hydrochlorid dissociates into hydrochloric acid, but it is not so efficient in aiding the action of pepsin as an equivalent amount of hydrochloric acid. (Jour. A. M. A., March 24, 1917, p. 931.)

Active Principle of Leeches.—The principle in the buccal secretion of the leech which prevents the clotting of blood is herudin, a deutero-albumose. (Jour. A. M. A., March 24, 1917, p. 931.)

A Contribution to the Physiology of the Ureter and Vas Deferens

D. I. NACHT

Studies were made on the isolated ureter and vas deferens of animals and from the surgical operating room, and were confirmed by observations of those organs in situ in various animals. The isolated ureter is best studied by means of ureteral rings. These contract rhythmically so that the rate and force of peristaltic movements and the tonus of the ureter can be studied. The optimum medium is a Locke solution plus a small quantity of fresh urine. Urea stimulates the contractions of the ureter; a slightly acid medium is also necessary for the furtherance of the contractions. The vas deferens, on the contrary, survives best in a slightly alkaline medium. These conditions of acidity and alkalinity correspond to those in nature. Oxygen is necessary for the proper maintenance of the contractions of both ureter and vas deferens. Heat first stimulates and subsequently paralyzes the contractions. Cold slowly inhibits them.

Both ureter and vas react to epinephrin, which fact proves that they are inervated by the true sympathetic. The response to ergotoxin still further corroborates this fact.

Both ureter and vas react to the so-called parasympathetic drugs; pilocarpin, physostigmin, cholin, muscarin and atropin, which fact proves that they are also inervated by the parasympathetic fibers.

Both ureter and vas react to nicotin, which fact points to the presence of ganglion cells in their walls. (Jr. Urol.)

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The nutritive value of whole wheat as a permanent article of diet has long been known and its use has been advocated by physicians for years. One objection of the past has been the unpalatableness of the usual forms and especially has this been true in the feeding of children.

It is interesting to note the change in the attitude of the child since the popular invention of Prof. A. P. Anderson (Puffed Wheat) has been marketed. No longer does the junior member of our household refuse. Quite the contrary—he demands.

The invention itself is no less interesting. Sealed in guns, the whole grains of wheat are revolved for an hour in 550 degrees of heat. Thus the moisture in each food cell is turned to superheated steam. When the guns are shot these food cells—over a hundred million per kernel—explode. The whole wheat grain is transformed into thin, airy, flaky bubbles, eight times their normal size.

By this remarkable process the Quaker Oats Company, of Chicago, has received the endorsement of physicians for their product.

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Advantage of Pyelotomy Drainage for Nephrotomy Wounds

E. L. KEYES, JR.

Pyelotomy and nephrotomy wounds heal promptly as a rule providing there is no obstruction in the ureter below or in the lower urinary tract. Occasionally, however, operative wounds of the renal parenchyma close with extreme slowness, although there may be no demonstrable obstruction to the outflow of urine. It has been the author's experience, however, that incisions made into the renal pelvis are followed uniformly by prompt closure. He believes that the tardy closure of nephrotomy wounds may often be due to the blocking of the upper ureter by blood and pus. The prompt healing of pyelotomy wounds has led the author to adopt this procedure wherever possible; but where a nephrotomy is necessary, he recommends suture of the incision in the parenchyma and drainage through a counter incision made in the renal pelvis. He has carried out this plan in three cases with satisfactory results. (Jr. Urol.)

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Hot and Cold Applications

The effect on the blood pressure of hot and cold applications, extra-abdominal and intra-abdominal, has been experimented with by F. S. Hammett, with the assistance of E. W. Tice and E. Larson, Los Angeles (Journal A. M. A., February 24, 1917). The application of cold and heat on and within the abdomen during and after abdominal operations and the fact that blood pressure changes are an important index of the condition of the patient suggested the inquiry. Cats were used for the experiments. The animals were anesthetized with ether and records made of the changes in blood pressure by connecting the carotid artery through a canula with a mercury manometer so arranged as to trace the pressure variations on a smoked paper attached to a slow moving kymograph. Sodium bicarbonate solution of 1.08 specific gravity was used as an intermediary fluid. The heat or cold was applied by passing cold or hot water, approximately 25 C. above or below the temperature of the body, from reservoirs

through rubber tubing to a glass coil placed in immediate contact to the region studied. This was so suspended as to exercise the least possible pressure on the part. Before the heat or cold was applied, time was allowed for the pressure tracings to become constant and then applications were made for fifteen minute periods. The external abdominal applications were made through the external skin of the abdomen with the hair closely clipped, while the internal applications were made by opening the abdomen and placing the coil within, then approximating the cut edges and closing the opening with bull-dog clamps. Control experiments were made in both groups. Thirty-six experiments on twenty-four cats were made by applying the soil on the external abdominal surface, and produced but little change in blood pressure except a possible slight increase. The hot applications invariably produced a rise lasting as long as the application was kept up and decreasing to normal after removal. The intra-abdominal experiments were thirty-two in number on twenty-six cats. The cold application produced a slight fall in blood pressure, recovering slowly after the stimulus, and the application of heat also produced a slight change. It is evident that the external application of either heat or cold activated the vasoconstrictor mechanism, causing increase of blood pressure. It must be remembered that these applications, unlike those of Muller, were strictly localized. The fact that local applications of heat to the abdominal surface during anesthesia causes a rise of blood pressure which may be able to counteract the fall caused by the anesthetic is of some practical importance. Two general possibilities can be suggested as causing the sharp fall of blood pressure with the intra-abdominal applications. The effect of these stimuli is to set into activity the vasodilators. According to Barger and Dale, there is present in the intestinal wall a depressor substance, beta-iminazolylethylamin, which has been shown to exert a significant action of the vasodepressor apparatus. It has also been shown that this substance can be produced by the action of intestinal bacteria on histidin, hence the probability of the observed reaction being the result of hormone action is dubious. The recent work of Burton-Opitz on the effect of stimulation of the splanchnic nerve on blood pressure offers a more plausible explanation. The practical significance of this drop in blood pressure in anesthesia from warm or cold applications is obviously that such are not conducive to the welfare of the patient. In packing the abdomen with ice after certain operations care should be taken to determine the blood pressure level beforehand, as the marked fall of blood pressure might well be dangerous. It is evident that the use of hot or cold packs on or within the abdomen should be attended with a careful following of the blood pressure changes during and after operations.

———R———

Spasmodic Asthma

R. H. Babcock, Chicago (Journal A. M. A., February 10, 1917), after referring to a former paper on the subject, reports a number of cases illustrating the anaphylactic nature and the difficulties in the way of successful treatment of spasmodic asthma. With increased experience as to the nature of the disease, the conviction expressed in his former article has been strengthened, and it has been demonstrated that no pains must be spared in searching for and removing any and every diseased process that may serve as a focus for protein absorption. More than one focus may exist, and it would seem that sensitization to protein from one source renders the patient particularly liable to sensitization to other proteins and to proteins absorbed from different situations within his body. This is specially shown in hay-fever cases. The focus or foci may be found in the mouth and nasal passages but the focus outside of the respiratory tract is quite possible, as is shown in the gall bladder case reported in his former article. It should be stated, moreover, that his further experience has suggested that an additional factor may underlie or be associated with the sensitization by a foreign protein, that spasmodic asthma is not a nervous disease, as has been shown by Auer and Lewis' experiments, but one cannot see much of these sufferers without getting the impression that there is some sort of connection of the disease with the nervous makeup of the individual. Why do some persons have asthma while others with identical foci of infection do not, though the same organisms are obtained from foci culture in both? What causes a different reaction in different individuals to the same provocation? Babcock reports a number of cases in all of which vaccine treatment is given and the bacteriology treated, and his conclusions are that cases of bronchial asthma showing evidences of secondary bronchitis with

perhaps areas of atelectasis or bronchiectasis are the most refracted. If no secondary focus of infection exists in the lungs, the finding and radical removal of foci is likely to give relief. If the focus for the protein absorption was in the upper respiratory tract, a coryza or any other condition in the nasal passages preventing drainage of secretions may cause a recurrence of the asthma. Autogenous vaccines are of much aid in management but should be given with great caution and the patient warned that the treatment will be long. They can do no good if the focus alkalies for the neutralization of the acid bodies are sodium, potassium, and calcium, sodium being the most important. Sodium exists elsewhere without removal by operation. In most of his cases he obtained an anaerobic fusiform which seemed to have much to do with the production of the asthma, but this is only his impression, since it has been only when this organism has been obtained from the sputum and included in the vaccine that the latter has been successful.

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Acidosis Therapy

A. O. Gettler and Edward Lindeman, New York, (Journal A. M. A., Feb. 24, 1917), suggest a new method of treating the morbid condition known as acidosis in which the normal alkalinity of the blood is deranged and diminished. The pathologic process bringing about this condition are described. The most convenient method of detecting the condition is that of Van Slyke which consists in determining the alkaline reserve of blood plasma by means of the amount of carbon dioxid absorbed with alveolar tension. The chief bicarbonate is the drug of choice. It is given by mouth, by rectum, and, in severe conditions, intravenously. It is not always effective. It merely neutralizes the acid bodies, but does not prevent their developing. It is often vomited when given orally, and is irritating when given by the bowel. The intravenous method, while rapid, is not always safe. Some of the bicarbonate is converted into carbonate in solution and an excess of this may jell the blood. The amount of alkali in the circulation being directly proportionate to the volume of blood plasma it follows that any increase of the latter should raise the total alkaline capacity of the blood and hence blood transfusion is worth considering. The authors have attempted by experiment to prove the possibility of increasing the alkalinity of the blood of the donor by large and frequent doses of alkali, and to test the feasibility of the introduction of alkali through the blood of the donor in its most available form with simultaneous increase of the oxygen carrying capacity. They consider that they have proved the possibility of this, and give their results in alkalinizing the donors. "1. The reaction of the blood before, during and after alkali ingestion was carefully determined by three independent methods. All tests (H ion content, alkaline reserve by carbon dioxid germination, and bases actually present) showed that the alkalinity of the blood may be appreciably raised by our method. (2. The highest increase in alkali reserve was 37 volume per cent, obtained in Case 2, or an actual increase of alkalinity of the blood of 74 per cent. 3. This maximum blood alkalinity is obtained between twenty and forty minutes after administration of alkali, reaching the greatest height in about thirty minutes. It quickly subsides thereafter. 4. In acidosis therapy with sodium bicarbonate, the alkali should be given in small doses at regular and very short intervals, rather than in large doses once or twice daily." A successful clinical trial of the method is reported. The patient was a pregnant woman suffering severely from vomiting of pregnancy and acidosis which caused the artificial emptying of the uterus on the thirteenth week. The acidosis, however, was not remedied, but the patient's condition grew worse on account of vomiting. Blood transfusion of alkaline blood from the husband by the syringe method was successful in relieving the condition, and the convalescence was thereafter progressive. They recommend the method in similar cases, and think that by its timely use in severe acidosis complicating pregnancy the necessity of emptying the uterus may be avoided. It may be employed also in other conditions. The blood should be compatible and in alkalinizing that of a donor, the blood should be transfused about a half hour after administration of the last dose.

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A normal salt solution should contain 58.37 gm. of sodium chloride to the liter of water. A decinormal solution contains 5.837 gm. to the liter.

Treatment of Epithelioma by Radium

RUSSELL H. BOGGS

The writer emphasizes the fact in the International Clinics with many photographic illustrations that in each case the proper form of radiation and dosage for each case must be carefully determined.

Four classes of epithelioma are to be considered:

First, the lesion which can be cured by one application of radium with the proper dosage.

Second, the lesion which is so situated that glandular involvement is likely to take place or has already occurred and the Roentgen ray should be employed as an adjunct to treat adjacent glands.

Third, those cases in which the local application of radium supplemented by the Roentgen ray will only act as a palliative measure.

Fourth, those cases in which excision is justified to be followed by radio-therapy.

Professor Boggs believes that radium and the X-ray should always be considered first in the treatment of epithelioma, because, when properly applied, practically all epitheliomatous tissue can be made to disappear and there are fewer recurrences than by any other method. In order to apply the method, however, the operator must have the requisite clinical experience with these growths as well as a knowledge of the use of the agents employed.

Inoperable cases in which the tonsil is involved are often markedly improved so far as symptoms are considered.

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Syphilis as an Etiological Factor in Laennec's Atrophic Cirrhosis of the Liver

DOUGLAS SYMMERS

Symmers in a study of atrophic cirrhosis of the liver in the International Clinics concludes that alcohol plays a secondary role in the etiology of atrophic cirrhosis of the liver. A certain percentage of the cases conform to the type described by Laennec. In this group syphilis is the primary etiological factor and alcohol, if it enters into the process at all, is contributory, and not essential.

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The following is recommended for acute nasal catarrh: Carbolic acid, 8 min.; Icthyol, 1 dr.; Dil. Alcohol, 2½ drs.; Distilled water, q.s. for 3 oz. Use as a spray two or three times a day. One of the synthetic preparations may be used in place of icthyol.

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KANSAS CITY, : : : : : : : : MISSOURI.

The nutritive value of oatmeal, as compared with that of wheat flour, has been firmly established and for thousands of years the oat has been the advocated food.

It contains a higher percentage of albuminoids than any other grain, viz., 12.6 —that of wheat flour being 10.8—and less percentage of starch 58.4, as against 66.3 in wheat. It has rather more sugar, viz., 5.4—wheat flour having 4.2—and nearly three times the amount of fat—5.6, as against 2.0 in flour. Salts amount to 3.0 per cent in oats, but are only 1.7 in wheat.

The rolled oats marketed by the Quaker Oats Company, of Chicago, are worthy of particular note, as only selected, plump oats are used, one bushel of grain yielding but ten pounds for the finishing process.

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Danger of Fly Poisons

From a collection of cases reported in the newspapers, it is shown that during the last year there were thirty-six cases where children had been poisoned from arsenical fly destroyers. Of these twelve were fatal.

It is interesting to note that nine of these cases with three fatalities occurred in Illinois and only one case in Michigan. A bill introduced in the Illinois legislature to prohibit the sale of poisonous fly papers was defeated. A similar bill was passed by the Michigan legislature. Illinois paid as tribute for the neglect of her legislators to safeguard children, three infant lives and the suffering of six others. This example is a forceful one, in our opinion, and is self pleading for the abolition of this peril.

The United States Public Health Service has taken cognizance of the dangers of poisonous fly papers. The following is extracted from Supplement No. 29 of the Public Health Reports:

"Of other fly poisons mention should be made merely for the purpose of condemnation, of those composed of arsenic. Fatal cases of the poisoning of children through the use of such compounds are far too frequent, and owing to the resemblance of arsenical poisoning to summer diarrhea and cholera infantum, it is believed that the cases reported do not by any means comprise the total. Arsenical fly destroying devices must therefore be rated as extremely dangerous and should never be used, even if other measures are not at hand."

There seems to be no sufficient reason for permitting the unrestricted sale of arsenical fly destroyers and it would be well if other states followed the lead of Michigan in this and regulated their sale.

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An Important Hypnotic

That often intractable symptom of nervous disorder, insomnia, suggests the use of Chloretone in preference to hypnotics of the coal-tar series, for the reason that the former is not depressant to the heart and respiration and is not toxic in ordinary therapeutic doses. It produces peaceful slumber closely resembling the natural process, the patient awakening refreshed and rejuvenated. It does not disturb the digestion, produces no objectionable after-effects, and does not cause habit formation.

Administered internally, Chloretone passes unchanged into the circulation and is deposited in considerable quantities in the cerebral tissue, the result being that the patient falls into a profound sleep. It appears to be decomposed within the body, for, volatile as it is, we do not find it in the expired air, nor can it be recognized in the urine.

Chloretone is useful in the treatment of the insomnia of acute mania, periodic mania, senile dementia, the motor excitement of general paresis, and alcoholism. It is especially beneficial in controlling sleeplessness due to pain—as in cancer, tabes dorsalis and neuralgias—and to mental strain or worry.

As doubtless most physicians know, Chloretone is a product of the laboratories of Parke, Davis & Co. It is supplied in crystal form—in ounce vials and in capsules of three grains and five grains. Because of its camphoraceous flavor it is perhaps best to administer it in capsules.

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PRESIDENT'S ADDRESS

Fifty-first Annual Meeting, Kansas Medical Society

JAS. W. MAY, M.D., Kansas City, Kansas

Fellows of the Kansas Medical Society:

I wish to acknowledge a deep debt of gratitude for the honor you have given me the past year. It is an honor that will live in my mind for all time and one that cannot be surpassed by any act, gift, or deed to come. The duties of the office have been a pleasure, a mental profit and withal a stimulus and uplift.

There has not been one antagonism by word or act during my term of office. While I have endeavored to perform the duties of this office in as satisfactory a manner as possible, it must be confessed that there is much undone which may be accomplished in future administrations.

It is with a feeling of awe that we assemble at this our fifty-first annual meeting. The thoughts of our own little endeavors are so dwarfed by the magnitude of the great war disasters that it cannot but make us feel that this meeting should be given over entirely to discussions on preparedness. That we stand with our country in this great crisis there is not the shadow of doubt. That we endorse the stand of our President and Congress to defend at all cost and hazards our beloved country also is true. Therefore we must, without waiting to be called upon, do our little mite to bring to a successful conclusion this gigantic undertaking.

That we can be of immeasurable service to our country, particularly in its medical and surgical department, there is no question, and I have not a doubt that every one present today would gladly give their all for the perpetuation of the just principles and the glorious cause of this, our country, the grandest, noblest, and withal the best on God Almighty's earth.

We must all realize the seriousness of war, what great physical and financial losses will be sustained. But when the call comes to Kansas we will be able to stand erect and without ostentation, say: We are ready.

In a recent letter from your secretary, Dr. Chas. S. Huffman, who is Commandant of the Kansas National Guard, he says, "I believe there will be ample opportunity for every member of the medical profession of Kansas, and especially the younger members, to get into service."

There has been a committee, of which Dr. Geo. M. Gray is chairman, working to index the physicians of the state for the Committee on National Defense.

There will be opportunity for every one to perform a service for his country—in the Regular Army, as physicians and surgeons, or in some of its ramifications—in the Navy or the National Guard there is room for all.

Each individual member of this Society has some especial talent of which he himself and others are aware, which can be used to the advantage of the service. It is urged that you let your light so shine that this talent may become an integral part of America's defense.

Loyalty to your country and also to your brother practitioners may be shown by those of more mature age who will without thought of recompense take the places of those who engage in active work in the Army or Navy. The ones who stay at home and do their share for their country will fight just as brave a fight as the ones who enlist and are sent to the front.

We must not and will not go to pieces at the glamour of war. We will conduct ourselves, our profession and our business at home just the same or rather better than if war did not exist. We must hus-

band our resources, and encourage others to do so. We must raise more, eat less, in fact economize in everything. If this war amounted to only a scare—that is, does not continue but for a few months—it will have taught us to be a real nation, to be loyal, saving, economical, capable of self denial, and proven our capability, worth and power to all the other countries of the earth.

Before we became so deeply involved in this great international conflict I had intended addressing you upon the subject, "Constructive Criticism." However, since we will have to conduct our state affairs just the same, war or no war, there are a few things I wish briefly to mention.

In the first place, regarding medical legislation, a subject which is exceedingly touchy with us owing to the fact that we have been defeated nearly every time we have asked legislators to pass any measures to control the practice of medicine or rather to limit it to educated men.

I would like to say a word here in commendation of the State Board of Medical Examination and Registration for their refusing to allow any one to take the examination unless he be a graduate of a Class A medical school. This is certainly just and proper and will help to elevate the standard of medical practice in Kansas. However, we still need a medical practice act which would exclude irregulars of all kinds and help the laity by protecting them from the nefarious practices of quacks. But, much to our disgust, the laity refuse many times to be protected and even court and solicit that which we know to be disaster.

In this particular we have been to a marked degree negligent in educating the laity along these lines. We have been content to allow the irregulars (which include chiropractors, osteopaths, advertising quacks and charlatans of every description) to occupy space in the newspapers, exploiting their wares in bold claims and admissions of greatness. Repeating these advertisements time after time gets them a clientele who are blind to intelligence. So when it comes time to pass laws of a helpful nature to exclude irregulars they have a following who override us. How true this is—one needs but consult the records of legislative enactments in this and other states. The fact is we are fortunate to have any medical practice act of any description whatsoever in this state.

Now to my mind the remedy is this: That we employ a man of sufficient education, not in active practice, to prepare articles for the newspapers on medical subjects. We must use every endeavor to get them published by exerting the influence of the entire profession of the state. We must have more public meetings where these questions can be discussed in a frank and fearless manner. Remove the mysticism from the practice of medicine, educate, educate, and educate.

Dr. S. Woods Hutchinson, in national publications; Dr. Wm. A. Evans in Chicago newspapers, and others in various lay magazines have done wonders, yet we have done so little.

The American Medical Association, of which most of us are passive members, has been a wonder worker for the profession. Are we suffering from hookworm or some allied disease? Personally I plead guilty. Do you?

In the matter of legislation there is much to be done, so many laws to be passed for the good of humanity and so very few will be considered. For that matter it is hard enough to get the ones enforced that are on the statute books, much less enact new ones. But of this I will speak later.

We have tried lobbying in the legislature to promote good and prevent bad legislation. Did we do it? We did not. We even went so far as to help elect a Governor whom we believed would do his best to prevent a quack medical practice act. Consult the records and find how he betrayed us. Doctors, as a rule, are averse to mixing in politics. However, there are a few worthy exceptions and we all know how nobly and with what zeal they worked. All of us cannot afford the sacrifice of running for office, but we can and should do our utmost to put men in office who will not be antagonistic to the welfare of the inhabitants.

It is getting to be, or rather always has been, necessary to find how men running for legislative office stood on questions of a medical nature and support the ones who are right. We have done this in a half-hearted way. It is time to do this in a proper, whole-hearted, systematic and thorough manner. Let us defeat, if possible, the prospective legislator who, if not openly, secretly whacks us in our official neck, who decries the practice of medicine and who thinks a non-educated charlatan has as much right to administer to the sick as an educated medical man. Let us keep tab on him, advertise him to the community and prevent his election if pos-

sible. Personally I will change my politics, when it comes to legislators, with every change of the moon if it will do any good.

There is one law passed by the recent legislature that I would like to commend, and that is the section of the Workmen's Compensation Act which provides for the payment of surgeon's fees in these cases. True, the schedule is low, the maximum amount for hospital and surgeon is limited in any individual case to one hundred and fifty dollars. Still, it is far ahead of the previous workmen's compensation law. The former ignored the hospital and surgeon entirely.

The medical department of the State University needs some helpful attention from us. This institution can and must survive. It has pre-empted a territory in which no other medical school can locate and get recognition, so long as this school stays in the A class. This is true only so long as the medical department of the State University survives and maintains its standing. If for any reason it should discontinue it would take the University of Missouri but a minimum of time to locate its medical department in Kansas City. Therefore we must help put our school on a plane where it belongs, and that is second to none in the universe.

In the first place, to get the greatest efficiency from the staff the men at the head of it or rather the Dean and his assistants should give their entire time to the work and none to the practice. It seems idle to suppose that efficiency can come from any other plan.

The financial proposition has also been a most serious handicap due to the penurious legislators who have seen fit to make it the goat of all appropriation measures. We should do our best to have a law enacted providing a separate tax for the whole school, all departments of the State University, sufficient to carry on its work in an adequate manner. This would place it above petty politics, beyond the whims of law makers and even the highest executive in the state, who in times past has seen fit to use his official axe on the University for political self-aggrandizement.

The time to get action on this proposition is now. Create sentiment for it by pointing out the advantages to be gained. Nearly every department in the University, is and always has been handicapped by lack of money. I can recall at least a dozen professors who have received national recognition of their abilities, who have gone to other schools because we have been too little to pay them one-half their real worth. So when you go home have this in mind and get your representatives, or rather the candidates, pledged for this measure. If they will not pledge themselves, get someone to run who will, then get out and fight for his election.

Would it not be a most expedient thing to make the welfare of the school of medicine our affair? Why not appoint a permanent committee from this Association to be designated as the "Committee on the School of Medicine of the University of Kansas." Let this committee visit the school, make it a matter of investigation and recommendation, then report to the State Medical Society at its annual meetings. The School of Medicine assuredly would welcome such a procedure.

Let our slogan be, "A great medical school for the State of Kansas."

The prevention of blindness, than which there could be nothing more humanitarian, has received very little consideration in Kansas. We should have a committee appointed by the Society to work along this line. This committee should work in conjunction with the national organization for the prevention of blindness. Public lectures should be given in every city of any consequence in the state. Newspaper articles should be published and laws promulgated.

In this particular a law should be passed prohibiting the sale of wood alcohol, which has produced a number of cases of blindness and even loss of life from its ingestion. Even its fumes have been known in many cases to have produced blindness. Denatured alcohol is cheaper, just as useful and without the deleterious effects of wood alcohol. But this is only one of the many evils which need correcting and immeasurable good can be accomplished by active co-operation of our State Society.

The same plan should be adopted regarding all contagious and infectious diseases. We are not doing enough to prevent tuberculosis, cancer, syphilis and allied diseases. A few have contributed more than their share but we should all help the cause and not be called slackers.

There is one proposition that we should consider that has been advocated a few times, but nothing of a definite nature has ever come of it, and that is a National Board of Medical Examination and Registration. Now I am not enough of a lawyer to know the best way to bring this

about, but certainly it would be a proper and just thing to do.

One successful examination should be sufficient evidence that a physician is capable of practicing his profession and he then should be allowed to practice in any state in the Union or in any of the possessions of the United States.

A word of commendation should be said for the Journal and its editor who has made it the success it is. The Journal is more than self-supporting and that in view of the fact that everything connected with it costs more.

In conclusion I will say that with all of our faults, our lack of doing things which should be done, we still can boast of a society that compares favorably with the best. One has but to attend one of the annual meetings to be convinced of the solidarity of the organization, the enthusiasm in the scientific sections and the number of tireless workers who are always willing to promote its welfare.

Your secretary informs me that the receipts for dues this year are in excess of any previous year and we have more money in the treasury than ever before. So you see we are better off mentally, physically and financially than ever, and let us keep it so. Let us all pull together without animosities or misgivings and continue to be a whole-souled, broad-minded scientific body of men with one common cause—the benefit of humanity.

———R———

Perversions of Metabolism; a Consideration of Causes, Effects, and Treatment.

H. J. STACEY, A.B.,M.D., Leavenworth, Kansas.

(From a paper read before the Northeast Kansas Medical Society, March 1, 1917.)

We advance from intricate mystery to simplicity. To promote health and efficiency, the work of the specialists must be co-ordinated and be made serviceable to the profession at large, upon whom falls most heavily the duty of preventing and treating diseases. The whole subject of metabolism has so long been a bugbear, a maze of conflicting theory and practice, opinion veering from point to point, as some enthusiastic worker advanced a step, that it is with great humility that I undertake the task of showing that the general practitioner, as well as the specialist, can now take up the burden, and *must* undertake to deal with the diseased conditions involved, if he is to do his patients justice. You *must* take it up; scores of our best men declare this to be the most important subject before the medical profession today; and that nine-tenths to nineteen-twentieths of chronic disease falls within these boundaries. I have standardized and simplified. You can recognize these cases, and work out a correct diagnosis and treatment, in direct ratio to the amount of time and the brain that you mix in. This system has been in successful operation for three years; publication was delayed until every essential detail could be repeatedly tested, a solid foundation laid, and a long series of successful cases recorded (and for a long time it seemed "too good to be true"). The amount of chemical work yet before us is appalling.

It is not possible to exaggerate the damage done by the so-called chronic diseases that are dependent upon metabolic disorders. Up to fifty years ago, the greater part of the human death rate has been due to the acute infections, the plagues and scourges, which are now well enough understood to be—in a great measure—under control. Surgery has reached a high degree of efficiency. Our more nervous, over-fed, modern human being, besides lowering his efficiency, is now dying of the unheeded faults of his civilization; of the chronic disorders. Dr. Mayo believes that not 10 per cent die a physiologic death. There were approximately 800,000 preventable deaths in the United States last year. We are dying from the metabolic disorders directly, as in diabetes; from the gradual disabling of important organs, as the cardio-vascular diseases; and from lowered vital resistance, falling easy prey to infections, as pneumonia.

We shall not consider acute diseases, acute infections, accidents, acute poisoning and the like, nor cases frankly surgical, except as their sequallæ persist, and we can aid in removing them. Nor can we discuss hereditary tendencies toward perversions.

The limitations imposed by space, and good nature, confine me to the bare statement of essentials; details of the important points in diagnosis and treatment, and in management of individual cases, will be presented in the near future.

In order to attain success, we must first correct some of the erroneous beliefs held by the public; perhaps the first that must go is the belief that they can have no food-poisoning, auto-intoxication, malassimilation, without a stomach-ache. Progress on our part has been greatly hin-

dered by the fact that no two authors have attached the same meaning to certain words; "stasis" for example.

Metabolism is the power that organized bodies possess of continually using up and renewing the matter composing that body. As metabolic equilibrium, in the complex organisms, as man, requires a multitude of physiologic processes and chemical reactions, a perversion means a "break," a wrong or incomplete process, anywhere in the chain, from intake of material to excretion of waste products. Since in man these vital processes depend on balanced activity of certain vital organs, excessive or diminished activity of one or more of them is "perversion"; as duodenum, pancreas, liver; pituitary gland, thyroid, supra-renals, sexual glands. Carrel's observation is instructive:

"Decay is due to an inability of the tissues to eliminate waste products. Under conditions and limitations of our experiments, senility and death are not a necessary, but merely a contingent, phenomenon."

Perversions of metabolism express themselves as systemic poisons, largely developed within the body, the symptoms depending on the severity of the poisoning and on the degree of deficiency of normal functioning of any organs or part of the body, whether due to depression or destruction of these affected organs. These systemic poisons (excepting a few considered later), fall into three classes, their three causes, endlessly inter-acting, being at the bottom of an overwhelming majority of our chronic diseases; there are those due to perverted nutritive processes, known as auto-intoxication, intestinal intoxication, etc., and those due to chronic infections, as the pus-focus, and those arising from chronic irritations.

One of our greatest mistakes, and one no longer justifiable, has been to give these causes separate consideration; whereas, they are associated and inter-related in an endless number of combinations.

Let us consider the meaning of auto-intoxication as it is here used in the discussion of chronic disease. It is a systemic poisoning, by poison developed within the body, from interference with the normal nutritive processes; most frequently absorbed from the intestine, it may also arise from inefficient elimination of normal waste—in fact it may be due to a breakdown of a normal nutritive process, anywhere from the intake of food and oxygen, to the excretion of waste material. There are numberless varieties, because there are numberless causative factors. The systemic poisoning derived from bacterial activity, except as they interfere with nutritive action, should be classed as septic intoxication, or bacterial intoxication.

Concerning auto-intoxication, we are told that the immense consumption of indigestible pastry, hot bread and biscuits, fresh bread of wheat flour and yeast, soft breakfast foods — especially with sugar, coffee, soda water and ice cream—is responsible for what may be termed a national disease.

Acidosis is a frequent disorder, especially in children and in diabetics; the normal alkalinity of the blood and tissues is decreased.

Constipation, sometimes a result of auto-intoxication, is a tremendous factor in its production; a book could be written in describing its effects. I have noted the names of a few observers who insist on the paramount importance of constipation; for example: Ochsner; Lane; Rockey of Portland, Ore.; Metchnikoff; Osborne; Mutch of London, who has made profound studies of intestinal conditions; Saundry; Arthur Keith, London; and scores of others. In the study of normal and abnormal conditions of the intestine, Kellogg and Case of Battle Creek have made splendid advances.

True toxins apparently may not be absorbed through the intact mucous membrane. In general, alimentary toxemia is produced by absorption of relatively simple chemical substances, the result of fermentation and putrefaction. In fact, the normal bowel *excretes* great quantities of poisonous material already in the blood. When the muscosa is irritated, inflamed, even denuded by unnatural contact with hardened or poisonous feces, and by cathartics used to remove them, it can excrete very little, and readily allows the passage of intestinal poisons into the lymphatics—both food and bacterial products.

Inflammation may involve the peritoneal coat. Extending through the bowel wall, exudate may form, giving us adhesions, abnormal fixation, kinks and bands, with more constipation and stasis. These partial bowel obstructions may be the result, as well as the cause of constipation and stasis. You may here put down the great majority of chronic intestinal diseases and dyspepsias. It seems quite certain that tuberculosis cannot gain entrance through normal muscosa. Auto-intoxication and

stasis are almost necessary for the development and continuation of chronic infection; and, through lowered resistance, for the incidence of acute infections.

"Intestinal stasis" we conceive to be a condition of the bowel itself, where the circulation of lymph and blood in the intestinal wall and mesentery is disturbed, with consequent chronic congestion, with interference with normal nutritive chemical processes in the bowel itself, and in the mechanism of absorption. Bacterial activity is generally an important element.

I promise myself the pleasure of showing in a future paper the far-reaching causes and effects of auto-intoxication. We see the baby taking it in by way of the mother's milk, lowering its vital resistance to the infections and metabolic diseases of childhood; and the man in the forties, from the depression of auto-intoxication, breaking down physically and mentally. We gave them dyspepsia mixtures, bromides or stimulants, or sent them away on a vacation. From considerations of this sort have arisen the legion of dietary fads and "health bringers." We have not before known the true principles of physiologic nutrition.

Next to auto-intoxications, with stasis, acidosis, and the like, comes chronic infection. Here the discovery and use of the X-ray has been the essential factor to successful study. The dentists, raising a fund by voluntary subscription, working in our laboratories, have recently been far in advance. Dr. Price, of Cleveland, may be called the moving spirit. Dr. Rosenau has aided in many ways. Their very important results are familiar to all. Thousands upon thousands of children, with arrested development; as many more adults, young and old, with decreased efficiency, and the beginnings of permanent disability and premature death, owe this condition to infected tooth-roots and local foci of chronic infection. The mere mention of infected tonsils and accessory nasal sinuses, intestinal wall infections, chronic cholocystitis, appendicitis, pelvic infections, genito-urinary troubles, chronic bone and joint infections, is enough to make us all watchful.

Chronic irritations are more often overlooked. We are just finding out that a chronic irritation, without frank infection, is probably the third most important cause of perverted metabolism. Briefly, a chronic irritation, as hemorrhoids, chronic appendicitis, displaced generative organs, sore mouths and inflamed gums, painful indigestion, pernicious activity of the colon bacillus in the intestinal mucosa — *eye strain* being of *paramount importance*— clear down to ingrowing toe-nails, all tend to the production of auto-intoxication, through their influence upon the sympathetic nervous system, and the functions controlled by it, and through their effects upon the endocrincus glands. Even during sleep, pain affects the body functions adversely. We see faulty, imperfect digestion, systemic poisoning therefrom, loss of body strength and tone, from deficient assimilation and elimination, all due to the depressing effect of a chronic irritation. A patient can almost starve to death from injury done to the organs by these continuous drugs.

Mental and moral perversions are fully as damaging as are the physical irritations. "A great majority of our diseases are built out of our daily habits." Fear; self-indulgence; restless, upset; envy; discontent; selfishness; quarreling; worry; jealousy, especially between man and wife; bad sexual habits—all these claim their thousands, through perverted nutritive functions, mal-assimilation, faulty elimination, auto-intoxication — then lowered resistance to infection, and organic disease. On the other hand, you must usually eliminate auto-intoxication with or without a chronic infection, before the patient can be free from the mental and moral disturbance. It is a vicious circle.

Underlying the chronic disease, under the limitations here observed, then, are Auto-intoxication, Chronic infection, Chronic irritation—in every possible combination. Independently, as cause, or grafted on as a result, again producing secondary perversions, is perverted or unbalanced functional activity of the great organs, nutritive and endocrinous. Through lack of co-ordination of the knowledge already possessed, through bias and lack of discrimination, we have signally failed to help these patients; content with the discovery of one apparent cause, we have looked no further. Some one aptly remarked that it is not surprising that emetin alone does not cure pyorrhea, since the amœba alone is not the cause of pyorrhea.

With the aid of some simple tests perfected in recent years, the diagnosis of the most of these cases has become comparatively easy. They demand patience, care and thoroughness, however, of the highest order. Let me repeat: the diagnosis must be 100 per cent painstaking.

Occasionally you will see one that seems impossible with our present knowledge; many of these yield to persistence. You will require a first class laboratory, the rentgenologist—everything you can get.

In the last two or three years, rentgenologists like Case, by their skillful use of the fluoroscope, have given us brilliant assistance in solving some very puzzling abdominal and intestinal problems; do not forget, however, that for every fifty people—whom we have been allowing to stumble along, half sick, at one-third of their true efficiency, and headed straight for premature breakdown and death—perhaps *one* needs the abdominal rentgenologic expert; *ten* need the simpler tooth rentgenogram; *thirty* need a good dentist; and the *whole fifty* require accurate instruction as to their hygiene, diet, and habits.

I am aware that it is the opinion of the majority of you Northeast men that too much time has been devoted to the points already considered; and diagnosis and treatment are yet ahead of us. Never mind! Reviews are always in order; and the first essential in successful treatment of these chronic disorders is a broad, open-minded survey of each case, with a realization of the fact that the disorder is *general,* not local; and that there are usually *several* underlying abnormalities, perhaps without definite symptoms, located anywhere between the scalp and the toenails.

First, a careful history, to which you will add, as the patient thinks of disabilities and sickness endured years before; these details are necessary, as in locating hidden pus-foci, and in determining constitutional and hereditary tendencies and weaknesses. Then the best, most thorough physical examination you can make. Here may be work for the specialist—the dentist and rentgenologist. A competent examination of secretions and blood, blood pressure, reflexes, and perhaps the special senses, will be required. Some simple tests of the urine have more recently been devised that have aided us wonderfully, have really been a turning-point in diagnosis and treatment, for the profession in general. You need no great institution, nor extensive equipment. You *must* have a nurse with special training in diet, hydrotherapy and mechano-therapy; and have access to a competent laboratory man and rentgenologist.

In addition to the standard urinary tests, I make constant use of what I will call the "elimination index." To get this index, we take a specimen of the urine passed at the time of day when the patient is most tired; another specimen when he is most rested, usually that first passed in the morning; the difference between these two findings gives the effect of *rest and relaxation on the patient's elimination;* this difference we call the Elimination Index. This index is least useful in kidney diseases, though even here it is often of value.

You will make constant use of the *sodium hydroxide test* for *acidity.* The percentage of acid as determined by this test bears no relation to the quantity of uric acid present; we may have an 80 per cent acidity by the hydroxide test with a normal amount of uric acid, or we may have an acidity as low as 15 or 20 per cent in the presence of an abnormally large quantity of uric acid. In all conditions, especially in diabetes, where it is necessary to watch the blood alkalinity, this test being easily made, is of the greatest value; alkalosis or acidosis is thus noted long before it would be suspected by symptoms; and a vast amount of painstaking work on the blood is avoided. This and the *hydrochloric acid-ferric chloride-chloroform* test for intestinal poisons, as indican, are our daily guides. While the hydrochloric acid test is rough and not quantitative, we find the information derived from it to be fully as valuable as that derived from the more difficult analyses. Of course, the urea is estimated and efficiency of its elimination noted. The feces are examined; the CO_2 concentration of respired air is estimated; and acidosis is looked for roughly by noting the patient's ability to hold his breath, or more accurately estimated by the hydroxid test.

We can here consider only certain particular or peculiar points of treatment.

COLONIC FLUSHING.

Dr. Tyrrell's Cascade Syringe has undoubtedly relieved a great many patients of headache, digestive disturbances, and the various disorders due to auto-intoxication. In seeking to make use of the advantages, while avoiding the disadvantages, of this syringe, we made various trials to find out why the syringe was so valuable. We came to the conclusion that the pressure of the syringe diminished or abolished certain reflexes. My nurse discovered that the colon could be readily flushed without causing pain, by putting the patient in an exaggerated Simm's position, making strong pressure on certain parts of the body while administering the

enema. You are all familiar with the cases where the fecal matter dries out and adheres to the bowel wall, not being affected to any extent by any cathartic given by mouth. Washing out this foul-smelling poisonous material may apparently change the patient's whole character in twenty-four hours. Our use of the fountain syringe was followed by none of the evil effects that follow the use of the Cascade. Sodium chloride and bicarbonate are used as indicated, the solution usually being kept at body temperature. This enema relaxes; it therefore is modified for an atonic bowel. It is simply invaluable when the intestine is spastic, inflamed and irritated; in most cases of true intestinal stasis; in the presence of high blood pressure with urine of low specific gravity; and in in most sthenic conditions accompanied by auto-intoxication. Caution: The patient must not feel pain from this enema.

Hydro-therapy, mechano-therapy, and special exercises are used. After the brilliant results obtained by S. Weir Mitchell, by the scientific use of baths and massage as aids to metabolism and elimination, it is difficult to understand why the profession in general has disregarded these great agents, surrendering them to the bath-houses, the osteopath and the chiropractor.

DIET.

The key to the diet question is *prevention of fermentation and putrefaction.* After centuries of twilight and darkness on the subject of diet, trying everything from milk to peanuts, we have worked out this simple, but correct, solution: The nourishment must not undergo abnormal fermentation or putrefaction; and it must meet the needs of the individual.

The diet must be specially prepared, as the ordinary cook, or even nurse, does not yet understand our necessities. The principles are: Proper selection, preparation, and combination; abnormal fermentation and putrefaction must be avoided.

Raw vegetable juice is the most valuable single food that we have found; it combats acidosis, furnishes the patient essential material, as mineral salts, and, through the action of enzymes, aids in the digestion of other foods. We simply could not do without it. So far as I know, it was first used by Dr. Russell of New York City, in connection with the treatment of walking tuberculosis cases. The principle is to take fresh green vegetables, clean and grind them, and express the juice, giving one or two ounces at a feeding, within ten minutes of the time of first crushing the vegetables; otherwise, the enzymes are lost. By placing this juice on ice, a part of its value is retained.

If seriously disabled, these patients should be put to bed, preferably away from home; taught to relax; usually are given large quantities of water. Where there is severe systemic poisoning, we use fruit juices and the vegetable juice, instead of starvation.

To restore a person so afflicted to a normal condition requires: Removing or draining the pus-focus, if present (teeth, sinuses, tonsils); "cleaning" of the patient's system; and removing irritation as far as possible; *prevention* of further poisoning by way of the alimentary canal; *building* up of the patient to normal. If a severe bowel operation is performed—as removal—the patient rarely becomes entirely well; treated medically, by a *correct* system, he always improves, and may become as "good as ever"; he cannot be injured.

Building up the patient includes giving strength and endurance to the entire system. Intestinal stasis or enteroptosis makes necessary a thorough hardening of the abdominal muscles, external and internal. Exercises are begun in the bed room as soon as the patient's strength warrants it; later he is given outside exercises; rowing the old-fashioned skiff, or row-boat, and sawing wood with a buck-saw, are the only ideal exercises so far found. Supporting belts must be considered as makeshifts only, to be used occasionally if the patient must be around before he is really strong enough.

If there is present either an unsuspected lesion of the nervous system, inefficiency of one of the great digestive organs, or a lack of balance in the endocrinic system, by experimenting in feeding, exercises, etc., it can usually be determined where the deficiency lies; and in case it cannot be permanently corrected, the patient is taught how to maintain the highest efficiency possible without increasing this disorder.

While this paper is already far too long, the subject is so broad that I have presented to you only a synopsis. As stated above, I hope to follow this soon with practical details, which may enable some of you to avoid the years of work that I have spent upon them.

The day of the well trained general practitioner has returned—if it ever really vanished. We see the vast majority of

these cases in time to *prevent organic damage;* we need no longer muddle along, allowing them to gradually go down.

[AUTHOR'S NOTE.—Credit for ideas and suggestions is due Drs. Chittenden, Russell, S. Weir Mitchel, Tilden, Ochsner, Case, Resenau, Price, Keith; and especially to Dr. S. C. Johnston.]

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Infantile Diarrhea

MILTON HAHN, A.B.,M.D., Mercy Hospital, Arkansas City, Kansas

Read Before a Joint Meeting of the Sumner County and Cowley County Medical Societies, at Geuda Springs, Kansas,

I have chosen diarrhea in infants as the subject of my paper because it is a timely topic and because I am able to speak with more or less intelligence on this subject, which is one in which I have always been interested and to which I have devoted a considerable amount of study. The modern conception of infant metabolism and feeding and of the causes and treatment of the digestive disturbances of infants we owe more than to any other group of men to Dr. Heinrich Finklestein and his assistants of Berlin, and I am fortunate enough to have been associated for a time with these men in their work in this field. Finklestein's clinic is in the Berlin City Infant Asylum, which contains at all times about three hundred illegitimate infants of which there is always a plentiful supply in Berlin. These babies are cared for in the clinic until three months old, when, if healthy, they are boarded out in private families, they are wards of the state, are carefully brought up and become soldiers or mothers of soldiers for the empire; but this is getting beyond my subject. The clinic as you can see furnishes a wonderful material for the study of the problems of infant feeding. All the babies are seen by Finklestein and his staff daily, careful records are kept of every case, complete autopsies made on every fatal case, and stools, food mixtures and metabolism material studied by trained chemists. I had the pleasure of working in this clinic during the greater part of the year 1913, as ward assistant, and did research work in the chemical laboratories, so I have a pretty good understanding of Finklestein's theories, which have been generally adopted. The ideas are simple and practical and I hope I shall be able to make them appear so to you. I shall not attempt a systematic exposition of the subject, but my paper will be rather a rambling discourse intended to give an outline of the fundamental principles.

I believe we are at present at the threshold of an important period of medical progress. Our methods are becoming more refined. We are beginning to go beyond the anatomical lesions of disease and are learning to study functions of the body and their disorders. Function has been until recently a vague idea to the medical mind. I recall the classification into organic and functional diseases of my own school days. In the mind of the medical student the functional diseases were identical with those diseases which are cured by Christian Scientists and chiropractors, but refined methods of study have given many functions of the body a place in the sun, both in health and disease. We are able to weigh and measure them in terms of accurate chemical physical units. The study of the functions of the adult stomach and intestines in disorders of those organs is an old story. The greatest impulse to the functional method of studying disease, however, was given by Makenze, in England, and later by Lewis and others in their remarkable work on the cardiac arrhythmias. Then came the work of American investigators on the functional study of renal insufficiency; and more recently accurate chemical and physical-chemical methods of studying the blood are helping us to understand many diseased conditions which have been grouped under the term acidosis.

What I am driving at is that the digestive disturbances, the diarrheas of infants, are not now generally regarded as organic diseases of the gastro-intestinal tract, but as disturbances of the function of digestion and of the general metabolism. The distinction is not an academic one, but changes our entire conception of these conditions and has led to a more satisfactory method of treatment. It has been customary to describe the various degrees of infantile diarrhea, under such anatomical terms as gastro-enteritis, enteritis, colitis, catarrhal ileo-colitis, ulcerative ileo-colitis, etc. Those of you who have seen many of these cases at autopsies must realize the absurdity of these terms. In nearly all cases the gastro-intestinal tract appears absolutely normal. There is no catarrh and no ulceration; nothing abnormal is found by bacteriological examination of the stools and intestinal contents. The treatment, too, under the old classification is unsatisfactory. In many cases the repeated purging, irrigations, starvation and administration of so-called intestinal antiseptics has been distinctly harmful. Most pediatricians have discarded the old anatomical term, gastro-intestinal disease, in

favor of the functional designation, nutritional disturbances.

It is a well known fact that babies fed on breast milk are much less susceptible to digestive disturbances than artificially-fed infants. The great problem of those interested in infant feeding has been to explain the harmfulness of cow's milk, which in its gross chemical composition is very similar to human milk. For a long time the blame was put upon the casein of the cow's milk, which was said to be difficult for the infant's stomach to digest. This was demonstrated by the appearance of curds in the stools, which were believed to be particles of undigested casein. Elaborate milk formulas were devised whose principle function was to dilute the harmful casein. More exact chemical investigation of the stools, however, has shown that these curds are composed not of casein but of fat and fat-soaps. It has been shown that the casein is not the harmful ingredient in milk, but the fat and sugar. It remained, however, to show why the fat and sugar in cow's milk were harmful although their composition is identical with corresponding ingredients of human milk. The problem was solved by a simple but ingenious experiment of Finklestein's assistant, L. F. Meyer. This is an important experiment in the history of infant feeding.

He coagulated samples of breast milk and of cow's milk, then mixed the coagulum of the cow's milk with the whey of breast milk and the coagulum of the breast milk with the whey of the cow's milk. These mixtures he fed to a number of infants with conclusive results. The children fed on breast milk coagulum and cow's milk whey developed diarrhea. Those fed on cow's milk coagulum in human whey did not. The conclusion from this series of experiments may be quoted in Meyer's own words: "The same quantity of fat and sugar which in full milk leads to digestive disturbance is well digested when given in diluted whey with the same percentage of casein which is present in full milk. This shows that the harm is not in the organic constituents of the milk but in the whey. This investigation led Finklestein to devise his albumin milk with which he and other pediatricians have had remarkable success in treating infantile diarrheas.

Albumin milk is made as follows: To a quart of milk is added a teaspoonful of essence of pepsin and the milk stirred until it coagulates. It is then strained through gauze or muslin, best by placing the clot in a muslin bag and allowing it to drip for about an hour. The clot is now rubbed through a fine-meshed wire strainer, a common kitchen utensil. A small amount of water is added and the clot is passed through the strainer several times until it is in a final divided state. Now a pint of whole milk is added to the coagulum and the original quart made up with water. The resulting mixture contains a little more casein than is present in full milk most of the fat with the whey diluted one-half, and fulfills the requirements for a harmless infant food as suggested by Meyer's experiment. Albumin milk can be made by any intelligent mother or nurse who is willing to take the pains.

When finished the mixture should be divided into feeding bottles and kept on ice. A granular sediment will be seen at the bottom of the bottle and this should be shaken up before using. A further precaution is not to heat the food to boiling, as this causes the sediment to form in clumps, making it difficult to feed. A simple modification of the albumin milk may be made by using a one-half dilution of milk to which is added three per cent of a commercial casein preparation. The results with this mixture which has about the same composition are nearly if not quite as good as with the original albumin milk.

In treating diarrhea three per cent of sugar is first added to the albumin milk; when the stools become solid the sugar may be increased to as much as ten per cent or until the infant shows a satisfactory gain in weight.

Disturbance of the abnormal intestinal digestion in infants is caused by a disproportion between the amount of food given and the tolerance of the bowel or its power to digest. This disproportion may arise through over-feeding either absolutely or relatively, that is through giving too large a quantity of food, or by giving a food with too large a content of some ingredient. The same disproportion may arise through weakening the tolerance of the bowel.

This weakening of tolerance or secondary intestinal disturbance occurs in many conditions, an important cause is infection. Thus, a slight coryza, or an otitis media, or furunculosis in an infant may be accompanied by a digestive disturbance which results from the poisoning of the intestinal membrane by toxins absorbed from the site of infection. In such

cases the digestive disturbance may be cured without changing the feeding by treating the primary infection.

Another source of injury to the intestine is bacterial toxins contained in contaminated milk. This factor has been greatly exaggerated, but the propaganda originated by it has led to very beneficial improvements in the hygiene of milk production and corresponding improvement in infant hygiene. Probably the most important factor in causing weakening of intestinal tolerance and consequent digestive disturbance is heat. The two chief arguments for the bacterial origin of infantile diarrhea were the increase of intestinal diseases of infants in the summer months and the fact that this morbidity affected almost exclusively the bottle babies, while the breast babies escaped. It was pointed out that as the bacterial growth in milk was greater in hot weather, the conclusion was self evident. It is now believed that the effect of the heat is to weaken the child, lowering the bowel tolerance and so causing pathological digestive processes.

This view is strengthened by the fact that intestinal disease is still common in children who are fed on clean sterile milk. In Germany, for instance, where it had been customary to sterilize all milk for many years before the propaganda was started in this country, infant mortality from intestinal trouble continues high. The explanation for the immunity of breast babies is that their superior nutrition makes them more resistant to heat than the bottle babies.

The result of an excess of food in the bowel or, what amounts to the same thing, the weakening of the digestive powers of the bowel, is a stagnation of food in the intestine and the occurrence of abnormal bacterial decomposition in this stagnated food. The most important decomposition products that arise are the fermentation products of the fats and sugars, especially the lower fatty acids, as lactic acid, butyric acid, etc. The effect of these acids is partly local irritation of the intestine causing increased peristalsis, secretion of mucus, and exudation of serum, and partly the absorption into the body of abnormal toxic products.

This loss of the property of the intestinal membrane to prevent the absorption of abnormal products is shown by the fact that in many such cases an unfermented milk sugar is absorbed and excreted unchanged in the urine, causing the glycosuria which is a common symptom of infantile diarrhea. Finklestein taught that the toxic symptoms of diarrhea were caused both directly by absorption of decomposition products and indirectly by the effect of these absorbed products on internal metabolism.

Recently Dr. John Howland, of Johns Hopkins, has shown that the toxic condition in these cases is an acidosis. It is probable that both factors should be considered. Dr. Howland presents a strong chain of evidence to support his hypotheses. The cases develop the clinical symptoms of acidosis, coma and air-hunger, and present all the chemical signs. The carbodioxide tension in the alveolar air is diminished, which indicates a corresponding diminution in the carbodioxide of the blood, and a proportional increase of the non-volatile acids. The total acidity or H-ion concentration of the blood is increased. The alkali reserve of the serum, chiefly sodium bicarbonate, is diminished. Alkali tolerance of the urine is increased, i.e., the amount of alkali required to neutralize the reaction of the urine. There is a diminished combining power of H.B. with oxygen, and an increased phosphate content of the serum. These chemical changes may be found in diarrhea cases before the appearance of any toxic symptoms. Howland believes that acidosis in diarrhea is due to diminished urinary secretion, consequent diminished secretion of acid phosphates by the kidney, and retention of these substances in the body fluids. The treatment advised by him is to increase the secretion of urine by giving water and salt solution by mouth, rectum, subcutaneously or intravenously, also the administration of sodium bicarbonate by any of these methods until the urine becomes alkaline. The diarrhea must be stopped as soon as possible, either by dietetic treatment, or, if necessary, with opium. This treatment is advised in all cases of diarrhea, even in the absence of toxemia, and must be pushed in proportion to the severity of the symptoms.

The principle of the albumin milk treatment is to check the injurious acid fermentation in the intestines by giving a mixture with low sugar content, by dilution of the whey which increases the tolerance of the bowel for sugar, and by giving large amounts of casein, which, by making the intestinal contents alkaline antagonizes the acid production. Practically the great advantage of albumin milk lies in the fact that quicker than by any other means, amounts of food can be given which

satisfy the caloric needs of the infant without danger of continuing the harmful fermentation—thus avoiding danger of inanition. Within a short time after starting this treatment the watery, acid stools change to solid, alkaline, fat-soap stools, the alimentary fever subsides, and the child begins to gain in weight. In milder cases the same principles may be fulfilled by simpler means. The ideal food, of course, is breast milk. If this cannot be obtained we can use simple milk dilutions, say half milk, without added sugar. To this we may add some casein preparation; or we can use a good buttermilk, which is a food with low sugar and fat content and high casein. It is also helpful to make a wise selection of the carbohydrates to be added, giving preference to those which are most slowly fermented. A series may be made of the carbohydrates, beginning with the one which is fermented with the most difficulty and ending with the one which is most easily fermented as follows: Starch flower, dextrin and maltose mixtures, cane sugar and milk sugar. Dextrimaltose is the best carbohydrate to use in diarrhea. Milk sugar is the worst. All these methods of treatment are started with a starvation period of twelve to twenty-four hours during which water or tea is given, sweetened, if necessary, with saccharin. The feeding is then begun with a small amount of food which is increased as rapidly as possible, controlling the dosage by the condition of the stools. The withdrawal of food is based on the same principle on which we prescribe rest for cardiac insufficiency, for the diarrhea of infants may be regarded as an insufficiency of the bowel. The same principle is involved in the treatment of all functional diseases: the weakened function must be allowed to rest and recuperate. Just as rest is indicated in cardiac insufficiency, so in renal insufficiency we try to rest the renal function by omitting from the diet those substances that are excreted with difficulty, and in diabetes we attempt to rest the function of carbohydrate metabolism by excluding carbohydrates from the diet. The same principle of treatment is indicated in intestinal insufficiency or diarrhea: food must be withheld, especially those ingredients which impose the greatest amount of work on the intestinal function.

A Case of Hypertrophied Prostate

T. G. Orr, M.D., Rosedale, Kansas

The following case is reported from the Surgical Clinic of the Bell Memorial Hospital, University of Kansas. The patient, 72 years of age, was admitted to the hospital June 23, 1916, with a complaint of difficult urination and hemorrhage from the bladder and rectum.

The onset of his present trouble dates back about four years when he began to notice that at times he had some difficulty in passing urine. About the time of the onset of the dysuria he had what he calls "pain in the bladder." During the last four years the attacks have occurred at very irregular intervals, sometimes weeks or months elapsing without disturbance. The condition, however, grew steadily worse with each succeeding attack until he was practically incapacitated by pain, difficult and frequent urination. Four weeks before admission, while working on a farm, the patient noticed a pain in the end of his penis and upon attempting to void passed some dark red urine and several small blood clots. He continued to pass small clots of blood for three or four days, after which time the urine again became clear. Two months previous to this he had noticed blood at times in his bowel movements. At the time of bleeding from the bladder the blood in the stools had become very frequent, there being some blood in almost every movement. Because of the great straining necessary to void there was practically always an associated movement of the bowels, often consisting of almost pure blood. The quantity of blood frequently passed was described by the patient as one or two tablespoonfuls. Frequently it was impossible to pass urine except in a stooping, half-sitting posture. This position seemed in some way to let the urine escape with least difficulty. It has only been necessary to catheterize the patient two or three times.

About three years ago a right inguinal hernia developed which was attributed to the straining necessary for passing urine. During the past two years there has been a gradual loss of twenty to thirty pounds in weight. Appetite was always good until two days before admission to the hospital, when he felt nauseated and refused food. Since the onset of the rectal bleeding he has gradually grown weaker until now he is hardly able to walk without assistance. He complains much of being cold and requires more bed covering to keep warm.

The family history is negative.

The past history is also negative except for chronic constipation for several years.

The physical examination showed a rather small man who walked with a stoop as if very weak and in pain. The skin was rather dry and sallow. The lips, mucous membranes and conjunctivæ pale. The eyes showed a marked arcus senilis. The heart was negative. The lungs were slightly emphysematous. The brachial and radial arteries were markedly thickened. The blood pressure was 116 systolic and 78 diastolic. Three weeks previous the systolic pressure was 130. On rectal examination the prostate was found slightly enlarged. When straining to urinate the anal mucosa protruded about three centimeters. The urinalysis was negative. The red cell count was 3,300,000, hemoglobin 50 per cent, and leucocyte count 3,500.

The proctoscopic examination revealed a small bleeding point on the anterior wall of the upper rectum. The lower ten inches of the bowel was otherwise negative.

Because of the persistent bleeding from the rectum, carcinoma of the sigmoid was considered probable. Several radiographs were taken of the large bowel after bismuth meals and enemas. All of these were negative.

A cystoscope was easily passed and the bladder examined without difficulty. There were ten ounces of residual urine. The bladder wall was trabeculated and the prostatic ridge enlarged. In the right half of the bladder there was what appeared to be a dark roughened stone about $2\frac{1}{2}$ or 3 cm. in diameter. Except for a small film of blood over a portion of the prostatic region the bladder was otherwise negative. An X-ray of the bladder region was negative and the opinion of the rontgenologist was that there was no vesical calculus.

A diagnosis of hypertrophied prostate and vesical calculus was made and a cystotomy advised.

A suprapubic opening was made in the bladder under local anesthesia of beta-eucaine $\frac{1}{4}$ per cent. Instead of a calculus a large firm fibrinous clot was found which was easily broken up and washed out. Examination of the prostate showed a small middle lobe projecting upward into the bladder. A drainage tube was fixed in the bladder. Because of the weakened condition of the patient it was thought best not to finish the operation at this time. There was some reaction following this operation, the temperature ranging from 100 to 101 degrees for six days. The tube was removed on the eleventh day and the wound allowed to heal because the patient had decided against a second operation for the removal of the prostate. There was never any bleeding from the rectum or bladder after the systotomy. On the sixteenth day after the operation the suprapubic wound closed and the temperature rose to 102. The bladder wound was reopened and a small tube inserted, after which the temperature again dropped to normal. The patient then decided to have the second operation, which was done twenty-one days after the first.

The second operation was done under nitrous oxide-oxygen anesthesia and lasted fifteen minutes. An adenoma about $1\frac{1}{2}$ cm. in diameter was removed from the right side and a pedunculated tumor about the same size removed from the middle lobe. The middle lobe tumor was in a location to act as a ball valve at the urethral orifice. A self-retaining catheter was placed, the prostatic wound packed with iodoform gauze and a suprapubic drainage tube fastened in the bladder. The patient left the table in excellent condition, the pulse having hardly changed during the anesthetic.

The pathological report was "adenoma of the prostate."

There was less reaction after the second operation than after the first. The tubes and packing were all removed by the fifth day and the wound healed in two weeks. The patient was discharged on the twentieth day after the second operation, able to void without difficulty and with his general condition much improved.

Three months after the patient left the hospital he had bained twenty pounds, his strength had returned and his hemaglobin was again normal. At present he is able to do light work about the garden and farm as well as before his illness.

The interesting points about this case are the firm fibrinous clot in the bladder that resembled a calculus and the vesical and rectal hemorrhage due to the great straining when trying to empty the bladder.

The patient was operated upon by Dr. M. T. Sudler and it is through his courtesy that I am permitted to report the case.

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W. E. McVEY, M.D. - - - - - Editor

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The Salina Meeting

The fifty-first annual meeting of the Kansas Medical Society was a success. The attendance was not as large as at the meeting in Topeka, but this was largely due to the bad weather and the condition of the roads. A great many who had planned to motor to Salina were unable to attend on account of the continued rains.

The Saline County men are to be especially commended for the completeness of their arrangements. Everything that could be done for tht comfort and for the entertainment of the visiting members and guests was thoroughly done. Rooms were supplied at the Registration Bureau for those who were unable to find accommodations at the hotels, and Boy Scouts were on hand to conduct them to these rooms. Cars were always at hand for the use of visitors who desired them. The hall in which the general meetings were held was plenty large and more free from disturbing noises than is usually the case. A large and convenient hall for the meetings of the House of Delegates and Council was found on the second floor of the same building.

Among the exhibitors were several of the regular patrons of the Journal—Hettinger Bros. Mfg. Co., Merry Optical Co., Physicians' Supply Co., Gerry Optical Co., Victor Electric Corporation and Horlick's Malted Milk Co.—and their presence there seemed to be fully appreciated by the visiting members.

Thursday was, of course, the big day. Only one of the speakers scheduled for that day failed to be on hand. Kreuscher, Eisendrath, Reed and Mix were there and gave the crowd the biggest scientific, intellectual feast it has had, at least for a year. The day was full and complete and every one who heard those lectures was more than paid for his time and expense in attending the meeting. We shall not attempt to give a synopsis of these lectures. On account of the absence of Dr. Ridlon, an address by Dr. P. T. Bohan, of Kansas City, which was scheduled for Wednesday, was transferred to Thursday. This address will appear in the Journal in due time as a part of the regular program.

The House of Delegates met at 8 o'clock on Friday morning for the election of officers and while the number of delegates in attendance was not as large as it should have been, it fairly represented the membership. The number of votes cast was to the number of members in good standing as one to thirty, while the delegates are elected on a basis of one to twenty-five members.

The election of officers was quite a simple matter, requiring but little time and showing little evidence of politics. Dr. Chas. S. Huffman, who has so faithfully served the society as its secretary for the past fourteen years, was unanimously elected president for the ensuing year. Dr. J. F. Hassig, who has demonstrated his ability as an organizer in the Wyandotte County Society, was elected secretary for a term of three years. Dr. L. H. Munn was re-elected treasurer for the eighteenth time. Councillors were elected for the Third, Fourth and Fifth Districts. Dr. O. P. Davis of Topeka was re-elected Councillor for the Fourth District; Dr. J. J. Brownlee of Hutchinson was elected Councillor for the Fifth District; Dr. P. S. Mitchell of Iola was elected to fill the un-

expired term of Dr. Caffey, deceased, as Councillor for the Third District.

One of the most important actions of the House of Delegates was the adoption of certain amendments to the by-laws, whereby it is provided that a member who has become suspended for non-payment of dues can be reinstated, after paying all delinquencies, only by a vote of his county society; and when a member of a county society moves into the jurisdiction of another county society he automatically becomes a member of the society into whose jurisdiction he moves. The full text of these amendments will appear with the official proceedings in the June number of the Journal.

Several resolutions were adopted, among them a resolution, in pursuance of a suggestion made by the president in his address, that a committee be appointed from the members of this society to be designated as the Committee on the School of Medicine of the University of Kansas; which committee shall visit and investigate the School of Medicine and make such recommendations as may be indicated and report to the Society at its annual meeting.

Dr. O. P. Davis was re-elected chairman of the Defense Board and Dr. D. R. Stoner of Quinter was elected a member of the Defense Board to fill a vacancy caused by the death of Dr. Caffey.

Kansas City was selected as the place for the next annual meeting. Hutchinson was a very close second in the voting. There seems to be a general agreement among the members that part of the meetings should be held in the western part of the state and we believe this is an excellent plan, but the attendance is always larger when the meetings are held in Kansas City or Topeka, perhaps because these places are more easily reached from all parts of the state, or because a larger proportion of the members live in the eastern part of the state. The meeting at Kansas City next year may be looked forward to with no misgivings. The Wyandottes will show us what they can do, and from what we have already seen we can guarantee that it will be worth while.

There has always been one serious fault with our annual meetings, one for which no satisfactory remedy has yet been found. We refer to the confliction which always occurs between the meeting of the House of Delegates and the program of the general session. The meeting of the House of Delegates, according to the present arrangement, invariably disorganizes the general session and diverts the interest of the members from the scientific program. With a society of this size there should be no attempt to conduct two meetings at the same time. All are interested in the general program, as all are interested in the business to be transacted by the delegates. It also usually happens that some of the delegates are also on the program for papers. At this meeting the election of officers occurred on Friday morning and the business of the House of Delegates was not concluded until 11 o'clock. During that time the attendance at the general session was not only very small, but only one paper was read, practically all of the members on the program being engaged in the meeting of the House of Delegates. It is not fair to those who have prepared papers for the meeting, nor is it fair to those who go to the meeting for the purpose of hearing papers read. Now that a three days' meeting seems to be established, a solution of the difficulty may be suggested: Let the House of Delegates meet and complete its business on the evening of the second day, or on the evening of the first day. This will eliminate one evening of entertainment which the committee on arrangements is expected to provide for, will avoid the confliction with the scientific program, and will allow every one to attend the meeting of the House of Delegates that desires to do so.

It is to be hoped that at some time and in some way the House of Delegates and the Council will be able to perfect the plan of organization so that every physician in the state who is qualified and

wishes to join may do so. There are now too many unorganized counties and too many counties in which only a nominal organization exists or in which no regular meetings are held. In the western part of the state multiple county societies should be organized, such as we now have in the ninth and twelfth districts, but in the more densely populated districts those counties which have no organizations should be grouped by the council or attached to other organized counties by the same authority. Where weak organizations exist they should be grouped or combined with stronger organizations. Such a plan would be much better than to permit members of suspended county societies to continue their membership in the present irregular way. It is difficult to bring about such combinations through the members of county societies that have few of any meetings, but if the Council should designate a certain grouping of counties in a society unit, and the secretary should issue a call for a meeting and organization, also providing an interesting and attractive program, it can hardly be doubted that some interest might be created. One great trouble is that our districts are not formed upon the best plan for organization, but if the Council as a whole should assume the authority and the responsibility for group organizations, the district boundaries could be ignored. We hope that some plan for better organization will be presented at the next meeting of the Council.

When the Society was first organized upon the plan adopted by the A.M.A., it was intended and so provided that the terms of service of the Councillors should be so arranged that one-third of the number should be elected at each annual meeting. At a subsequent time the state was redistricted and the number of councillors increased, but this point was apparently lost sight of. At this meeting the terms of two councillors (fourth and fifth) expired, at the meeting in 1918 the terms of four councillors (first, second, seventh and eighth) will have expired, and in 1919 the terms of six councillors (third, sixth, ninth, tenth, eleventh and twelfth) will have expired. It is quite important that a majority of the members of the Council should be experienced in their duties and familiar with the affairs of the Society, and for that reason it was intended that not more than one-third of the Council should be elected in any one year. This can be readjusted by the election in 1919 of two of the six councillors to serve for one year, and in 1920 they may be reelected, with those whose terms regularly expire at that time, for terms of three years. Thereafter four councillors will be elected each year.

The lecture bureau which was established and conducted during the past year bu the Journal has been taken over by the Council and hereafter will be under its management. Some little money has been appropriated and during the next season it is hoped that there will be very much better facilities for furnishing county societies with scientific lectures. The Public Health Lecture Bureau will still be under the management of the Committee on Public Health and Education of which Dr. Nesselrode is chairman.

Dr. Caffey

Shortly before the annual meeting at Salina, notice was received of the death of Dr. Hugh B. Caffey, Councillor for the Third District. Dr. Caffey had served several terms as councillor and was regarded as one of the most faithful and conscientious men in the Society.

He had a pleasing personality and a quiet dignity that marked the always-gentleman. He was a dependable friend, a conscientious physician and a genuine manly man.

Medical Mobilization

There should be no further hesitancy on the part of those who wish to offer their services to the government. There are still opportunities for those who wish to secure commissions in the Regular Army

Medical Corps. A considerable number will still be needed for the 160,000 men to be added to the strength of the standing army. A very large number will be required for the first body of 500,000 men to be drafted.

The age limit for admission to the regular Medical Corps of the Army will be 34 until January 1, 1918, after which date the age limit will be 32.

For those who wish to join the Medical Officers Reserve Corps the age limit has now been fixed at 55.

Additional examining boards have been appointed for the convenience of those who apply for admission to the M. O. R. C. Among those appointed are: Dr. John F. Binnie, Rialto Building, Kansas City, Mo., and The Surgeon at Fort Riley. These examining boards are authorized to conduct examinations for the Medical Officers Reserve Corps without reference to the surgeon general's office until the papers are completed.

MEDICAL STUDENTS SHOULD NOT ENLIST

Heads of educational institutions generally have been advised to discourage the enlistment of medical students and those who are taking work in preparation for the medical course. The following communications will indicate the attitude of the Council of National Defense on this subject:

THE COUNCIL OF NATIONAL DEFENSE

Washington, April 25, 1917.

Dr. M. T. Sudler, Dean, University of Kansas School of Medicine, Rosedale.

Dear Doctor: We are enclosing for your consideration a supplementary report of the Committee on Medical Schools of the General Board of the Council for National Defense.

Events have moved rapidly. It is now apparent that the urgent situation that foreshadowed a need for the continuous medical courses has been so far relieved that the policy and recommendations of the committee have been changed. Therefore, after a careful consideration of the question, the committee urges all medical schools to abandon the plan entirely.

We desire to send the below notice direct to your student body, calling their attention to their duty in the present crisis:

Notice to Medical and Pre-Medical Students

In the present national crisis, a continuous supply of adequately trained medical officers is absolutely essential for the maintenance of armed forces in the field. It would be folly for the country to prepare for immediate emergency alone—we must face the possibility of the war lasting for years. It is therefore the patriotic duty of all college students intending to study medicine to remain under instruction until the country can avail itself of their trained services.

Medical schools are in a sense "munition works" necessary to produce trained medical officers for the army and navy. All medical students must therefore, in the interests of national safety, continue their work until graduation. With the exception of such men as the navy can utilize, all graduates are urged to secure a hospital training which the surgeons-general of the army and navy consider essential for their arms of the service.

We feel that the faculties of the schools, as well as the students, can render the best services to the country—an indirect military service—by continuing the courses of their institutions. Your duty at this time is to see that the educational system which you control—so vital to the welfare of the country both in time of peace and in time of war—is made to render its maximum service in this hour of the nation's need.

Respectfully submitted,
COMMITTEE ON MEDICAL SCHOOLS.

THE SCHOOL OF MEDICINE

Rosedale, Kansas, May 4, 1917.

Dear Doctor: In order that you may understand the wishes of the National Government as expressed through the Council of National Defense in the present crisis, I am quoting you brief extracts from two communications, which it would seem show us our patriotic duty.

Letter from the Surgeon-General's office, War Department, April 27: "It is most important that all medical schools continue to function and feed into the profession young men; and for this reason we do not wish to interfere with the activities of schools. We feel that the deans and faculties of schools, as well as students, can render the best service to the country—an indirect military service—by continuing the courses of their institutions."

Letter to Chancellor Strong from the Council of National Defense, April 25:

"It is quite evident that every possible effort must be made to keep pre-medical students from enlisting in line or in sanitary organizations, thus insuring a constant supply of members for the army and navy in case the war should last for years."

Report to Deans by Chairman of Committee on Medical Schools, Council of National Defense, April 29, 1917:

"The problem (of medical education) affects our schools, our entire civil hospital system, and hence, the health conditions of the greater part of our population, whose welfare we must consider under the increasingly onerous conditions consequent upon a state of war. . . We hope in the deliberations that follow you will exercise a vision that embraces the needs of the whole nation, not for the present crisis alone, but for the probable lamentable contingency that the war may last for years. . . . Your duty at this time is to see that the educational system you control —so vital to the welfare of the country both in time of peace and in time of war— is made to render its maximum service in this hour of the nation's need."

I understand, these official communications to mean that neither students nor faculty will be drafted; and that it is desired that they continue the medical schools in full operation and prefer that the members do not enlist in hospital units, or to join the reserve corps.

Very truly yours,

ASSOCIATE DEAN.

THE PLAN

We quote the following from an appeal sent out by Dr. Franklin Martin, head of the medical division of the Council of National Defense:

"The secretary of war, the chief of staff and the surgeon general have authorized and are now executing the following plan:

"A—Surgeon General Gorgas is mobilizing and equipping in groups of 200, doctors who are now members of the medical officers' reserve corps to support the depleted medical forces of England and France. These groups of 200 will sail every month, the first leaving within the next three weeks.

"B—Six Red Cross base hospital units with twenty-four doctors, fifty nurses, and a supporting personnel, aggregating 196 each, have been ordered by the war department to France for immediate service.

"C—One hundred and ten hospital units with approximately 3,000 automobile ambulances and 5,000 men asked for by France, will be dispatched within the next three weeks.

"Every doctor under 55 years old who has not responded to the call to enroll in the medical officers' reserve corps should do so at once. Every doctor who is already a member of the medical officers' reserve corps or an applicant should place himself at the disposal of the government through the surgeon general's office for service with our allies. This will enable the surgeon general who has discretionary powers in the distribution of members of the medical officers' reserve corps for service, to utilize the younger men for service on extra duty at the front and assign the older men now engaged in teaching medical students and in the care of civilian population at home, to pursue the work for which they are best fitted and maintain a normal supply of medical graduates."

"PREPAREDNESS" AND THE EXAMINATION OF RECRUITS

During the early months of their active service, the most important work for medical officers, both as to the amount and the responsibility assumed, will be the examination of recruits. The first call will be for 500,000 men, in addition to the number necessary to bring the regular army up to the quota provided in the law of June 3, 1916. This still requires approximately 160,000. The examination of 660,000 men is a pretty large undertaking, especially if the examination is made as thoroughly and as carefully as it should be made. The aftermath of the Spanish-American War, with its disabilities already requiring pensions far beyond reason, should be a sufficient warning to our government not to follow the lax methods regarding the enlistment of men which prevailed in 1898. France and England have had a sorry experience, and both have learned at tremendous cost the folly of regarding quantity as of more importance than quality. However, no matter whether the examination shall be rigid and inclusive—to include, for instance, the Wassermann test—or more or less superficial, the fact is that the medical officers, especially the Reserve Corps, have a tremendous and responsible task before them. Undoubtedly many who will be assigned to the examination of recruits have become rusty in diagnostic methods and will need to review some lessons in physical diagnosis. The physical examination of recruits is

practically the same as that for life insurance, except that it is on a larger scale, and in some respects is, or should be, more exacting. All who have now offered themselves, or who are proposing to offer themselves, for the Medical Officers Reserve Corps should adopt the principle of "preparedness" and be ready when called. The War Department has a manual entitled "Rules for the Examination of Recruits" (General Orders No. 66), which contains valuable information. This is supplemented by U. S. Army Recruiting Circular No. 1. These pamphlets can be obtained by addressing the Army Medical Department—or The Journal will gladly send a copy on receipt of a stamped, directed envelope.—Journal American Medical Association, May 5, 1917.

THE IMMEDIATE NEED OF YOUNG MEN FOR THE REGULAR MEDICAL CORPS

The Medical Corps of the Army is in immediate need of and is appealing urgently for young ambitious physicians to fill positions that have long been regarded as desirable but which have heretofore been difficult to obtain, namely, membership in the Medical Corps of the Army. The position is one of honor, it is permanent, and commands a good remuneration. It offers opportunity for those who are ambitious to make famous names for themselves. Not a little of the progress made in medicine has been the result of work by medical men of the army. There is opportunity for laboratory research and for scientific clinical investigation. The act of June 3, 1916, provided for increasing the standing army to 293,000 men, an increase of 161,000 men. This calls for a proportionate increase in the number of medical officers. After the full quota of the army is reached, 2,051 medical officers will be required. Including those in the Army Medical School and those who have offered their services and who have been accepted subject to examination, 685 medical officers are available. This leaves 1,366 additional medical officers necessary to be appointed by the time the new regular army is fully manned. How soon this will be is not known. It is dependent on how soon Congress will make the necessary appropriation and also on whether Congress will depend on the volunteer system or will adopt selective conscription to obtain the men. But no matter whether two months or six months elapse before the quota of 293,000 men is secured, there must be 2,051 medical officers ready to serve. The Surgeon General of the army is appealing for these men now. He wants them now so that they may receive the necessary training and be ready just as soon as the new regular army is ready. The Journal adds its appeal to that of the Surgeon General. Young physicians who are qualified and who consider entering into military medical work should act at once. An application blank appeared in The Journal last week. Fill it out and forward it immediately to the Surgeon General of the Army. Graduates of good medical schools under 32 years of age who are physically and mentally qualified will be thus rendering a service to the country, to medical science and to themselves.—Journal American Medical Association, April 28, 1917.

———R———

The Women's Medical Association of New York City is planning a banquet to be given at the Hotel McAlpin, Wednesday evening, June 6, 1917, for the women physicians who will be in New York City to attend the meetings of the American Medical Association. Tickets, $3, may be obtained from Dr. Mathilda K. Wallin, 616 Madison Avenue, New York City.

SOCIETY NOTES

STAFFORD COUNTY SOCIETY

The society met in Stafford on April 11. The members present were: Drs. J. N. Rose, H. H. Miner, C. S. Adams, M. M. Hart, W. L. Butler, E. Wallace, J. T. Scott, J. H. Webb, F. F. Lemon, Newell, Pankratz. The chair appointed a committee of three to draft suitable patriotic resolutions.

Dr. Webb read a paper on "X-Ray and Radium as Curative Agents."

Dr. Scott presented the subject of "Electro-Therapeutics in General Practice." The next meeting of the society will be held in St. John on May 9.

J. T. SCOTT, Secretary.

COFFEY COUNTY SOCIETY

The Coffey County Medical Society met in Burlington on April 4. Dr. Stockton presented a paper on "Throat Infections." A number of cases were discussed. Dr. Fear, representative from this county, gave a report of such proceedings in the Legislature as were of interest to the Society. The next meeting will be held in Waverly. C. C. CULVER, Secy.

LINN COUNTY SOCIETY

The Linn County Medical Society met

in the Masonic Hall at Blue Mound, April 6. The Society was very fortunate in having as its guests Drs. Jabes N. Jackson, O. H. McCandless and H. H. Lane, of Kansas City, Mo. Dr. Jackson gave a very interesting talk on "Intestinal Obstruction." Dr. McCandless took for his subject "The Little Things We Should Know" and supported his contentions by radiographic pictures. Dr. Lane talked on "Twilight Sleep and Its Practicability."

This was the largest meeting ever held in Linn County. Dr. Hopper of Ft. Scott extended an invitation to the members of the Linn County Society to attend the Southeast Kansas Society at Fort Scott.

H. M. BARNES, Secretary.

CENTRAL KANSAS MEDICAL SOCIETY

The Central Kansas Medical Society held its regular quarterly meeting at Ellsworth April 11, 1917. The following officers were elected for the coming year: Dr. Alfred O'Donnell, president, Ellsworth; Dr. E. A. Miller, vice-president, Bunker Hill; Dr. W. M. Reitzel, secretary-treasurer, Kanopolis; Dr. Geo. F. Zerzan, Holyrood, elected for three-year term on Board of Censors, Dr. J. B. Carter, Wilson, retiring.

A special clinical meeting was decided upon for some time in June and a committee was appointed to arrange for date and program. Announcement later.

W. M. REITZEL.

AMERICAN PROCTOLOGICAL SOCIETY

The nineteenth annual meeting of the American Proctologic Society will be held in New York City on June 4 and 5. The Hotel Astor is announced as the headquarters and place of meeting. A very interesting program has been arranged.

SHAWNEE COUNTY MEDICAL SOCIETY

At a special meeting of the Shawnee County Medical Society, Friday evening, May 4, Dr. Charles Louis Mix, Professor of Physical Diagnosis, Northwestern University Medical School, Chicago, gave a talk on "The General Principles in the Diagnosis of Cardiac Diseases."

Dr. Mix in presenting his subject said that rheumatic hearts occurred during the early ages of life. It is not necessary to differentiate mitral stenosis and insufficiency, but that insufficiency always developed first, followed by stenosis. Before the aortic lesion takes place there must have been a previous mitral involvement. Arrhythmia and inequality are rare in mitral insufficiency, but when present indicate presence of stenosis.

The syphilitic heart occurs in the fourth and fifth decades of life. The spirochæta attack the aorta causing an aortitis with consequent development of an aneurysm, or may attack the myocardium causing a myocarditis or an aortic insufficiency. Development is usually sudden and comes on after over-exertion. Dr. Mix stated a Wassermann should be made in every case of angina pectoris. The pain of angina is present in a large number of cases in the right arm as well as the left, following the course of the ulnar nerve. Many of these cases show an impairment of the muscle and joint sense. Examination of the cerebro-spinal fluid shows an increased number of cells. In young persons developing a myocarditis of syphilitic origin, there is a dyspnea out of all proportion to the heart findings.

Arteriosclerotic hearts occur in those usually past the age of sixty. It is a gradual involutional process and the abnormal sound heard is due to the blood passing over the aortic lining that has been roughened.

Renal hearts occur most commonly in those forty to fifty-five years of age. There is a hypertrophy of both sides of the heart with an increase of the blood pressure. The heart reaches a large size, the only valvular lesion being a relative mitral insufficiency.

At the close of the meeting the Society extended a vote of thanks to Dr. Mix.

At the next regular monthly meeting, to be held Monday evening, June 4, Chamber of Commerce rooms, Dr. E. E. Henderson, Professor of Clinical Surgery at the Chicago College of Medicine and Surgery, Chicago, will read a paper, giving a report of "A Thousand Cases of Inguinal Hernia with Notes on Some of the Unusual Types, Especially the Sliding Forms." This paper will be accompanied by a lantern slide demonstration. Out-of-town doctors are invited to attend this meeting.

E. G. BROWN, Secretary.

WILSON COUNTY SOCIETY

The Wilson County Medical Society met in regular session at Neodesha, May 8, with the following doctors present:

Drs. Flack, Thomas, Young, and Duncan, of Fredonia; Randall, Williams, Moorhead, Allen, and McGuire, of Neodesha; Hole and Addington, of Altoona; and Dodge, of Fall River.

Dr. Duncan introduced the following

resolutions, which were unanimously adopted and all present signed the card. It is possible that several of our physicians will wind up "somewhere in France" and it is desirable for the Society to protect their interests, should they be called into active service in the army. The resolutions, form letter, and card are much the same as the ones adopted by the Baltimore Medical Society, as we could not see how we might improve upon them.

I. Resolved that the Wilson County Medical Society of Kansas recognize the patriotism of those members of the medical profession, resident in Wilson County, who volunteer for the service of the United States Government, and in appreciation of this we recommend that should these members of the profession be called into active service, the doctors who shall attend their patients shall turn over one-third of the fees collected from such patients to the physician in active service or to his family.

II. Resolved that the secretary of the Wilson County Medical Society shall have prepared letter blanks according to the forms attacked, sufficient number to supply those physicians who are called into active service, so that they can send a filled out form letter to each patient; a carbon copy going to the doctors who have agreed to look after the physician's practice, and a second copy to be retained by the County Society. The secretary of the Society is instructed to file the carbon copies received by him and on notification by a physician that he has terminated his service with the government and has resumed his practice, the secretary of the Society shall then send out to each of the patients of this physician (whose names and addresses he has received in the filed letters) a letter stating that the physician has resumed his practice of medicine, and requesting the patient in the name of the Society to recognize the physician's patriotism by summoning him should he be in need of medical attention.

Wilson County Medical Society

....., Kansas, ..., 191..

Mr.....

St. or R.F.D.....

P.O.....

Dear Mr.....

As a member of the Reserve Corps of the United States Army, I have been ordered into active service by the government, and on this account I am writing you of this fact, so that in case of illness you may summon some other doctor to attend you.

In my absence Drs....., ..., ..., ..., ..., ..., have kindly consented to attend to my patients, and I can heartily recommend them. Sincerely,

.....

Resolutions Adopted by the Wilson County Medical Society.

Resolved that the Wilson County Medical Society of Kansas recognize the patriotism of those members of the medical profession, resident in Wilson County, who volunteer for the service of the United States Government, and in appreciation of this we recommend that should these members of the profession be called into active service, the doctors who shall attend their patients shall turn over one-third of the fees collected from such patients to the physician in active service or to his family.

Please present this letter to every doctor whom you may call in to attend you.

Wilson County Medical Society

....., Kansas, ..., 191..

I agree to abide by the resolutions adopted in relation to fees for attendance of patients of doctors ordered into active service by the government. In the remote chance of misunderstanding or disagreement arising under these resolutions, I agree to submit the facts to the Board of Censors of the Society and abide by their decision.

(Signed) .....

The members of the Kansas Medical Society who were present at Neodesha last December when the County Hospital was opened, will remember that we decided to have another clinic day at the County Hospital this fall. Therefore, the County Society at its meeting May 8, had a committee appointed to make arrangements for a clinic day in September. We hope that all of the out-of-the-county physicians who were present last December can be with us in September. I believe this clinic day for a Kansas County Hospital is unique and has not been duplicated. At least, so Dr. Sudler told us.

The Society adjourned to meet at Altoona in June.

E. C. DUNCAN, Secretary.

BOOKS

New and Nonofficial Remedies

New and Nonofficial Remedies, 1917, contains descriptions of the proprietary and unofficial medicaments which the Council deems worthy of recognition by

the medical profession. Every physician who desires to further the cause of scientific prescribing, who is anxious to see this country purged of the blight of the nostrum, and who desires to aid in diminishing the domination of commercialism in therapeutics in this country, should have a copy of this book for ready reference.

The Annual Reprint of the Reports of the Council on Pharmacy and Chemistry, for 1916, contains the reports of the Council which were adopted and authorized for publication during 1916. It gives the reasons why preparations which have been considered by the Council were admitted to New and Nonofficial Remedies, and also explains why certain preparations included in previous volumes are not contained in the latest (1917) edition of New and Nonofficial Remedies. Up-to-date physicians should possess the Annual Council Reports, as well as New and Nonofficial Remedies. New and Nonofficial Remedies will be sent postpaid for $1.00 and the Annual Council Reports for 50 cents, by the American Medical Association, 535 North Dearborn Street.

Diagnosis from Ocular Symptoms

By Matthias Lanckton Foster, M.D., F.A.C.S., member American Ophthalmological Society; Ophthalmic Surgeon New Rochelle Hospital; First Lieutenant Medical Reserve Corps, U.S.A. Published by Rebman Company, 141 West Thirty-sixth Street, New York City. Price, $6.

It is rather unusual, this effort of Dr. Foster, for it is confined to diagnosis and is not illustrated. His description of eye symptoms suggests a thorough clinical experience. The subjects are carefully presented and for the most part sufficiently complete. We cannot agree with the author as to the uselessness of illustrations in such a work as this. The fact that illustrations need explanation does not prove their lack of value. Most of us are greatly aided in our understanding of a subject by good illustrations that are carefully explained. We feel sure that in many parts of his book the text could have been strengthened by a few good pictures.

Cataract, Senile, Traumatic and Congenital

By W. A. Fisher, M.D., Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College. Published by Chicago Eye, Ear, Nose and Throat College, Chicago.

The author very carefully reviews the literature on the modern treatment of cataract, especially that concerning the development of the extraction of the lens in capsule in cases of senile cataract. He gives in detail his own method of intracapsular extraction and also his treatment of congenital and traumatic forms. It is a book of 120 pages, with a large number of very instructive illustrations.

International Clinics

Volume I of the Twenty-seventh Series. A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, with the collaboration of Chas. H. Mayo, M.D. Published by J. B. Lippincott Company, Philadelphia and London. Price, $2.00.

Among the interesting articles appearing in this volume of the International Clinics will be found one by B. B. Vincent Lyon, M.D., on "The Medical Treatment of Gastric and Duodenal Ulcer" and one by Curran Pope, M.D., on "The Medical Treatment of Poliomyelitis." Douglas Symmers, M.D., discusses "Syphilis as an Etiologic Factor in Laennec's Atrophic Cirrhosis of the Liver." Dr. Albert Abrams presents an article on "The Electronic Reactions of Abrams." Then there are articles on various other subjects, interesting and instructive. There are also many very excellent illustrations.

Surgical Operations

Volume II—A text book of surgical operations illustrated by clinical observations, for physicians and students, by Prof. Fedor Krause, Privy Medical Councillor, Directing Physician Augusta Hospital, Berlin, in association with Emil Heymann, M.D., Chief Physician Augusta Hospital. Translated into English and edited for American readers by Albert Ehrenfied, A.B., M.D., F.A.C.S., First Assistant and Visiting Physician, Boston City Hospital; Junior Assistant Surgeon, Children's Hospital; Surgeon, Boston Consumptive Hospital. In six volumes with 373 illustrations in two or more colors. Published by Rebman Company, 141 West Thirty-sixth Street, New York City, Price, $7.

Chapter 13, the first chapter in Volume II, deals with surgical procedures of the opper jaw, Chapter 14 with surgical affections of the oral cavity, then in regular order the succeeding chapters take up: Surgical procedures of the pharynx; surgical procedures of the salivary glands, injury of salivary glands; surgery of the facial and cervical nerves; surgery of the brain; surgical treatment of epilepsy; surgery of brain tumors; operative treatment of brain abscess, purulent meningitis, cranial tuberculosis and brain injuries, closure of defects of sinuses, plastic restoration of the dura, encephalocele and pericranial sinus.

This is certainly a master work on surgery and the publishers must be congratulated on the excellence of its mechanical makeup.

The Surgical Clinics of Chicago

Volume I, Number 1 (February, 1917). Octavo of 221 pages, 83 illustiations. Philadelphia and London: W. B. Saunders Company. 1917. Published bimonthly. Price per year, paper, $10; cloth, $14.

The first article in the Surgical Clinics is by Dr. A. D. Bevan on "Gall-Stone Disease," followed by one on "The Operative Cure of Inguinal, Femoral and Diaphragmatic Hernias" by the same author.

The next clinic is by Dr. A. J. Ochsner and includes a case of goiter, a case of femoral hernia and a talk on hernias in children. Dr. E. Wyllys Andrews contributes a case of fracture of the patella and three cases of plastic surgery. Then there are some unusually interesting clinics by Dean Lewis, Eisendrath, Kanavel, L. L. McArthur, Phemister, Carl Beck, Plummer, Ryerson and Kellogg Speed.

Cancer, Its Cause and Treatment

Volume II, by L. Duncan Bulkley, A.M., M.D., Senior Physician to the New York Skin and Cancer Hospital, etc. 12-mo, cloth (uniform with Volume I), $1.50 net. Paul B. Hoeber, Publisher, 67-69 East Fifty-ninth Street, New York.

In his first volume on this subject Dr. Bulkley presented the medical aspects of cancer and its control by dietetic and medical treatment.

In this new series of lectures just delivered at the New York Skin and Cancer Hospital, Dr. Bulkley has carried still further forward his studies on the constitutional nature and treatment of cancer, together with considering other matters than in his first book—recurrent cancer, metastases, the blood condition, etc. He also gives fuller data, including those for the year 1915, and an analysis of surgical statistics, with the end results.

Particular details of medical treatment are given, including a dietary, with new cases showing the satisfactory results of treatment.

The Internal Secretions

Their Physiology and Applications to Pathology, by Dr. E. Gley, Professor of Physiology in the College of France, etc. Translated from the French and edited by Dr. M. Fishberg, Clinical Professor of Medicine, New York University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases. 12-mo, cloth, 240 pages. Price, $2 net. Paul B. Hoeber, Publisher, 67-69 East Fifty-ninth Street, New York.

This is one of the subjects in which the profession is generally interested at this time and one about which these has been and is much speculation. Some of those who have delved a little way into the physiology of the internal secretions are perhaps too optimistic and in their writings are likely to place a higher value upon organotherapy than is justifiable. In his preface the translator says of Prof. Gley's book: "Professor Gley's study treats the subject in a thoroughly scientific, critical, yet not ultra-conservative, spirit, pointing out not only what we actually know in this very promising field, but also being careful to indicate what we do not know and suggesting the proper methods to be pursued if we are to learn enough of the subjects to make these glands, and their products, available in rational therapeutics."

MISCELLANEOUS.

New and Nonofficial Remedies

During April the following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion with New and Nonofficial Remedies: Abbot Laboratories, Parresine; Howard-Holt Co., Siomine; Lehn & Fink, Aspirin, L. & F.; E. R. Squibb & Sons, Acetylsalicylic Acid, Squibb; General Chemical Co., Sofos.

Propaganda for Reform

Piperazin and Other Organic Urate Solvents.—From a review of the literature P. J. Hanzlik concludes: There is no reliable evidence to show that piperazin, in small or therapeutic doses, imparts to urine solvent qualities, either by direct addition or after excretion; excessive doses produce a slight but negligible increase in uric acid excretion, the same being effectively produced by sodium bicarbonate or sodium citrate; there is no reliable evidence to indicate that piperazin can remove or prevent urate deposits; diuresis is uninfluenced by even large doses of piperazin and its administration does not materially reduce the acidity of the urine; scientific evidence, though limited, and clinical opinion indicates that piperazin is valueless in gout. Hanzlik also reports that there is sufficient evidence to indicate the worthlessness of the following as urate solvents: Quinic acid, quinoline, colchicum, piperidin, Urosin, Lycetol, Sidonal, Lysidin and Urol. (Jour. Lab. and Clin. Med., Feb., 1917, p. 308.)

Cyanocuprol.—Studies of the effects of "cyanocuprol" on tuberculosis processes, carried out by Japanese investigators, have been published. "Cyanocuprol" is stated to be a copper cyanid preparation, the exact composition of which is being kept secret. Even if its identity should become known, the use of "cyanocuprol"

is decidedly in the experimental stage. (Jour. A. M. A., April 7, 1917, p. 1057.)

Ambrine.—Ambrine is a French secret preparation that has been on the market for many years. It has recently come into prominence through sensational articles in the lay press. For all practical purposes it is solid paraffin to which some material has been added to make it adhesive and more plastic. For use it is heated until liquid and then applied to open wounds and burns, forming a relatively impervious dressing. (Jour. A. M. A., April 7, 1917, p. 1057.)

Paraffin Films.—The popular propaganda for "Ambrine" having brought the paraffin film treatment of burns into prominence, Torald Sollmann has instituted experiments to devise a suitable, open formula preparation which is simple and yet meets all requirements. He suggests that surgeons who desire to experiment with the paraffin treatment of burns use simple preparations of known composition. Ordinary paraffin melting at about 50 C. (122 F.) appears to possess practically the mechanical properties of "Ambrine." A mixture containing some asphaltum (asphalt varnish, Trinidad or Bermudez, "asphalt cement" and Texas asphalt were tried) gives a preparation of superior pliability. Other formulas are given and their trial suggested. (Jour. A. M. A., April 7, 1917, p. 1037.)

Pharmacology of Stovaine.—M. I. Smith and R. A. Hatcher find that in toxic doses stovaine produces death in animals by inducing immediate and simultaneous paralysis of the heart and the respiration, the action on each being independent of the other. They find that stovaine disappears rapidly from the bloom stream after its intravenous injection. Stovaine is slightly more toxic than novocain by similar modes of administration and complete recovery does not follow the administration of toxic doses of stovaine so promptly as it does with corresponding doses of novocaine. (Jour. Pharm. and Exp. Thera., January, 1917, p. 231.)

Hexamethylenamin in Pyelitis.—I. A. Abt advises caution in the administration of hexamethylenamin in the pyelitis of infants. It should be under continuous observation and its use should be continued for an extended period. The urine should be frequently examined for blood. Abt has more than once seen cases of fatal nephritis which he believes due to the overuse of hexamethylenamin. He advises that, if given to infants under one year of age, it should be given in one grain doses followed by water. This dose may be repeated four or five times daily. (Jour. A. M. A., April 14, 1917, p. 1100.)

The Luetin Test.—Confirmatory of previous investigations, H. N. Cole and H. V. Parysek find that some non-syphilitics respond positively to the luetin test and that in those non-syphilitics who do not respond spontaneously the reaction can generally be provoked by iodides. They also demonstrated that the reaction may be provoked by potassium nitrate and potassium bromide. Proving that the potassium ion in the potassium iodide and bromide was not concerned in the reaction, they found that the luetin test may be provoked by sodium bromide, sodium iodide and calcium bromide. (Jour. A. M. A., April 14, 1917, p. 1089.)

Abolition of the Salvarsan Patent.—The Chicago Medical Society and the St. Louis Medical Society urge the abolition of the Salvarsan patent. The patent should be abrogated, not only because the patentees have not supplied the demand, not alone because they have dictated to the medical profession who should have the drug and how much a physician might have, not alone because of the war with Germany, not alone because of the special needs of the government at this time for the control of venereal disease, not alone because, as some claim, the patent at Washington does not correctly describe the product, but also because the people who are supplying this product are charging prices that are exorbitant. In order that a sufficient supply to control the ravages of one of the most serious diseases that afflict humanity, may be assured, it is the duty of Congress to abrogate the Salvarsan patent. (Jour. A. M. A., April 21, 1917, pp. 1187 and 1203.)

Citric Acid and Citrates.—Citric acid and the alkali citrates, potassium citrate and sodium citrate, are oxidized in the body with formation of carbonates and hence tend to increase the alkalinity of the blood. Citric acid and the alkali citrates tend to render the urine less acid and, in large doses, render it alkaline. (Jour. A. M. A., April 21, 1917, p. 1206.)

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An Occupational Therapy Number

The Modern Hospital (Chicago and St. Louis) announces that its June issue will be devoted to the subject of Occupational Therapy and Occupations for the Handicapped. The importance of this subject

has not been sufficiently realized until comparatively recent times. Of late the nations at war have come to recognize the therapeutic and economic necessity of providing suitable occupations for those of their wounded and injured who are able to work. This necessity is just as urgent in the case of the handicapped class in civil life.

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Manufacturers of food products who are genuinely interested in the purity of foods as in the matter of profits that may be made should be encouraged by the medical profession. The Calumet Baking Powder Company has issued a little book on "Prejudice vs. Fact" which gives one a very definite idea of the facts about the composition of baking powder. They will no doubt be pleased to send one of these books to any of our readers.

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The Comparative Influence of Morphine and Total Opium Alkaloids on Renal Colic

David I. Nacht, in Journal of Urology. From the Pharmacological Laboratory, Johns Hopkins University and the James Buchanan Brady Urological Institute, Baltimore, Md.

A pharmacological study of the action of opium alkaloids on the ureter shows that morphine and codein stimulate its contractions and increase its tonus, while papaverin and narcotin inhibit the contractions and relax the tonus. Furthermore, small doses of papaverin can overcome the spasm produced by large doses of morphine. This is shown by experiments on the isolated ureter of the pig and also from the operating room and is further corroborated by observations of the ureters in situ in anesthetized animals. In ureteral colic there is a marked spasm of the ureter. Morphine, therefore through is local action, aggravates the condition. Hence its frequent failure to relieve renal colic except when given in large doses. The relief is induced by morphine only through the narcotic action on the brain. Pantopon (Sahlis mixture) or opium, on the other hand, contain enough of papaverin and narcotin to counteract the spasmodic effect of morphine, and hence are more useful in treating colic. Papaverin, moreover, can be given alone, and that not only by injection subcutaneously, but also by direct application to the ureter through the cystoscope, and its toxicity is not great.

Aneurismal Obstruction of Vena Cava Superior with Special Reference to the Caval Syndrome

P. G. Skillern reports in the International Clinics an example of this condition and also gives a brief review of the literature. The Caval Syndrome is described as follows:

This consists of enormous edematous swelling of the head, neck, trunk, upper extremities, and marked obstruction of the veins. These clinical manifestations depend upon the formation of a collateral circulation, the extent of narrowing of the vena, and the size and extent of the pathologic process which causes the compression.

The first result of compression is obstruction of the venous blood in the entire territory of the vena cava superior. Through dilatation of all veins and capillaries in the territory of the upper half of the body an enormous cyanosis is often caused. The result of the obstructed outflow of venous blood while more blood is continually being brought to the part is the appearance of edema. From the distribution of the edema and its further advance one may draw diagnostic conclusions as to the site of compression. The lower half of the body is almost always free from edema, but the latter appears here as well, when through overdistention of the inferior vena cava obstruction in the tributaries of this vein results, or when through cardiac weakness edema appears in the lower extremities and scrotum. Usually, however, even in this case the swelling of the upper half of the body remains in characteristic contrast to the very much slighter edema of the lower. Not only the subcutaneous cellular tissue, but also the deeper parts are involved by the edema, especially the mediastinum. Of importance also is edematous infiltration of the mucous membranes, for thus edema of the glottis may give ground for suddenly appearing death.

In the diagnosis of compression of the superior vena cava but little difficulty is encountered. The diagnosis is based upon the obstructive signs appearing in the territory of the vena cava superior, i.e., upon the direction of a collateral circulation and the prominence and characteristic course of the veins belonging to it. In favor of aneurism as the cause are the appearance of a dull, pulsating area and the Oliver-Cardarelli symptom.

The Wholesomeness of Gelatine

Gelatine is distinctly a modern food. In our grandmother's day the preparation of a gelatine dessert was a task requiring such a degree of skill, patience and effort that it was not frequently attempted. But today, when the many brands of commercial gelatine make its use simple and convenient so that it has become an every-day article of diet—the question of its dietetic value becomes of interest.

Gelatine is a wholesome article of diet because of a rather peculiar property. While it is not, as some suppose, a good substitute for albumen or protein foods, it has the faculty of saving albumen in the body from destruction. It dissolves more easily than albumen and acts as a guard between albumen and the body fluids which would destroy it. It thus saves albumen to the body, which is equivalent to supplying new albumen.

In addition to this indirect nutritive value, gelatine provides a most valuable means for conveying other kinds of nourishment in an appetizing and easily digested form. This is well illustrated in the case of persons who cannot assimilate ordinary milk readily, but the moment gelatine is added find it easily digestible. Gelatine is used today in many ways not ordinarily supposed. It is used in French soups, in the preparation of cold bouillon and consomme, in jellies, jams, candy, ice cream—as well as the well known dessert preparations. It is also used extensively in many dishes for the sick and convalescing. In every case the use of gelatine may be said to increase the value of the dish.

In the jelly powders of commerce an incidental pure food problem arises in the matter of flavoring materials. The fruit flavorings that are mixed in powdered form with the powder are sometimes not made from the actual fruit juices, but are synthetic and subject to some of the criticisms that have been made of synthetic flavorings used at soda fountains.

Probably the only manufacturer who has entirely overcome the flavoring difficulties is Mr. Otis E. Glidden, for seventeen years the leading expert in gelatine desserts, and now general manager of the Waukesha Pure Food Company, makers of the new Jiffy-Jell. He has put all his years of experience into this dessert and in addition to guaranteeing an ultra-superior grade of gelatine made by special processes in what is termed the model kitchen of the world, actual fruit flavors are furnished in liquid form, small glass vials of concentrated fruit juices being enclosed in the packets of gelatine. In the few months it has been on the market Jiffy-Jell is leading all older gelatines in sales.

The new plan has made possible the use of the finest fruits in obtaining fruit essences and has enabled the company to include in its list of flavorings, pineapple, which has never been properly made in powder form. The company also offers a hitherto novel gelatine flavor in mint, which is proving highly popular for serving as a garnish or relish with meats and other entrees, or in making salads.

Gelatine with these actual fruit and mint flavors especially recommends itself for desserts, salads and garnishes for early spring, when fresh fruits and herbs are scarce, not always fresh, and high-priced.

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Bread In the Home.—Government Specialists Test Its Value and Best Way of Preparing It

If home-baked bread were uniformly well made it would be used more extensively than at present in place of more expensive foods, say specialists in the U. S. Department of Agriculture, and this would be a distinct economy. From the standpoint of nutrition it makes very little difference whether breadstuffs are served in the form of bread or in the form of breakfast cereals, side dishes with meat, or desserts. A man engaged in moderate muscular work can profitably consume about three-fourths of a pound a day of breadstuffs in any one of these forms. This quantity is the equivalent of one pound of baked bread. As a matter of fact, however, it is not probable that in the average family this quantity is consumed and the deficiency is made up by the use of more expensive substances. Of course, bread alone is not sufficient for the maintenance of health, but from both an economical and a hygienic point of view should be used more extensively than it usually is.

In a new publication of the Department, Farmers' Bulletin 807, detailed directions for the making of bread in the home are given, together with a number of convenient recipes for home-made biscuit, rolls and bread in which rice or potatoes are used with flour. The bulletin also gives a score card by means of which it is suggested the housewife can estimate the merit of her product.

Hodgkin's Disease

A. F. Holding and Samuel Brown, New York (Journal A. M. A., March 3, 1917), report their experience with eighteen cases of Hodgkin's disease observed by them during the past three years, although they do not endeavor to present the results of treatment, only pointing out some of the clinical facts which have a bearing on it. They express their opinion as to the infectious nature of the disorder, and remark that the first symptoms in their cases were enlargements of the cervical gland, usually unilateral, and pruritus of the extremities, the former being the most important. The possibility of Hodgkin's disease should, they say, be considered by practitioners in cases of pruritus, especially of the extremities, persistent and aggravated by perspiration. The removal of large glands should be practiced for microscopic examination and complete removal if the cases are seen early when the disease is localized. The treatment is unsatisfactory and recoveries are rare. Of the thousands of patients treated there are only two authentic cases in which the patient was reported symptom free after five years. The Roentgen ray and radium are the only new agents that appear to be of benefit in this disease and those should be used, at least after operation. A Roentgen examination of the chest is indicated in all cases before operation, if extensive surgical removal is considered.

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Cholecystectomy

D. B. Phemister, Chicago (Journal A. M. A., March 3, 1917), says that the difficulties experienced in the operation of cholecystectomy and the consequent operative risk are responsible to a large extent for the wide variance in opinion as to its advisability. The general adoption of the Bevan curved or oblique incisions beginning above near the xiphoid, permitting the outward rotation of the liver and exposure of the region of the ducts has greatly bettered the operative results. W. J. Mayo first removed the gall bladder by starting at the cystic ducts, which has become the routine procedure when possible in many clinics as affording better hemastasis. This is doubtless the best method when it can be carried out, yet many surgeons still prefer to begin the removing of the gall bladder at the fundus. Even in the hands of the most skilled advocates, it is sometimes impossible, on account of adhesions and liver fixations, to obtain sufficient exposure. When the removal has been begun at the fundus, the branches of the cystic artery are injured repeatedly as the main trunk of the vessel is approached, this frequently causing annoying hemorrhage, to avoid which Phemister recommends the following procedure: After separation of adhesions about the gall bladder and its pedicle, if any are present, the cystic duct and artery region are definitely located by inspection, if possible, and, if not, by careful palpation and a curved forceps applied at the point at which it is desired to amputate and ligate. This will prevent any hemorrhage from the cystic artery, and the gall bladder can be removed from the fundus to the neck with only such minor disturbance from bleeding as occurs from the liver surface. After separation of the gall bladder, if the clamp is not on the pedicle at the point at which it is desired to amputate, it may be unlocked and readjusted. This will usually be found unnecessary, as by inspection or accurate palpation the forceps can be properly placed before the separation is begun. The peritoneal fold containing the duct and artery may be perforated at its base and separated from the liver by the point of the forceps, after which the entire pedicle is grasped in the forceps. This facilitates ligation after the gall bladder has been cut away. The objection that wherever a curved forceps could be placed on the pedicle it ought to be possible to begin the removal of the gall bladder at that point Phemister says does not hold, as the forceps can be applied after seperating the adhesions in most varied cases.

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It pays to read the advertising pages of a magazine. You will learn things you did not know before, and some time the knowledge will more than pay for your trouble.

The University of Kansas School of Medicine

The following courses in the School of Medicine will be offered during the summer session of 1917, June 7 to July 18. Physicians who wish to specialize or review will find these courses to be valuable.

Other courses are offered by the University of Kansas that may be desired by premedical students, medical students and physicians. Attention is especially called to the courses in chemistry—including organic, biology, physics and modern languages.

A general catalog including all courses will be sent upon application to the director of the summer session.

ANATOMY.—Courses I, II, III and IV are required of medical students. Atlases and text-books are used as guides. The work in the laboratory is as independent as possible. Drawings and notes supplement the dissections. Quizzes are given by instructors on parts as completed. Credit is given only upon the completion of the work outlined and the passing of final examinations, both written and practical. Each course is supplemented by lectures bearing on the practical phases of the dissection.

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II (=2).—DISSECTION OF THE LEG, PERINEUM AND ABDOMINAL WALL. Three hours credit.
Professor Sundwall.

III (=3).—DISSECTION OF THE THORACIC AND ABDOMINAL VISCERA. Three hours credit.
Professor Sundwall.

IV (=4).—DISSECTION OF THE HEAD AND NECK. Three hours credit. Professor Sundwall.

For the above four courses: Lectures, 8 a. m.; laboratory from 9 a.m., throughout the day. Laboratory fees, $5 per course.

V (=6).—TOPOGRAPHICAL ANATOMY. Three hours credit in the School of Medicine. Lectures daily, 9 a.m.; laboratory daily, from 10 a.m. throughout the day. A laboratory course in human anatomy, including dissections, study of models, preparations, cross-sections. Special emphasis will be laid upon the practical phases of anatomy. This course is especially designed for physicians who desire to review anatomy. Laboratory fees, $5. Professor Sundwall.

VI (=11).—ADVANCED WORK IN ANATOMY. Credits, hours and fees to be arranged. Opportunities will be offered advanced students and graduate physicians to carry on special dissections in which they may be interested. Professor Sundwall.

Courses 1, 2, 3, 4 are designed for medical students.

Course 6 is designed for those who wish to make a complete review of anatomy. Special emphasis will be laid on the practical side.

Course 11 is particularly designed for those who wish to specialize in some branch of medicine. In taking up a specialty a thorough knowledge of the organs and parts concerned is of fundamental importance. This course ought to appeal to physicians contemplating going away for special training, as the structures can be as readily worked out here as elsewhere, thus saving time and expense.

VII*a*.—HISTOLOGY. Lectures and laboratory work upon the cell and the tissues. Three hours credit in the College or in the School of Medicine, 9:30 to 11 a.m., with 60 additional hours of laboratory work to be arranged by consultation with the instructor. Prerequisite: Ten hours of biology. Professor Coghill.

VII*b*.—SPLANCHNOLOGY. A laboratory study of the organs, particularly of the visceral system. Two hours credit in the College or in the School of Medicine, 9:30 to 11:30. Prerequisite, Course VII*a*.

Course VII*a* and VII*b* are the equivalent of Anatomy VII (Histology and Splanchnology) of the College of Medicine. Professor Coghill.

VIII (=8).—EMBRYOLOGY. The study of the embryology of the chick and pig, followed by a consideration of human embryology. Two hours credit in the School of Medicine, 11 to 12, with 36 additional hours of laboratory work to be arranged by conference with the instructor. Prerequisite, Course 7.
Professor Coghill and assistants.

IX (=9).—INTRODUCTORY NEUROLOGY. Lectures, readings and laboratory exercises upon the fundamentals, plan of organization and functions of the nervous system, with reference primarily to psychology and pedagogy as applied to problems relating to the welfare and development of the child. Three hours credit in the College, 7:30 to 9:30.

This course is not accredited in the Medical School, but with certain modifications, arranged by the instructors for individual cases, it may be substituted for the regular course in neurology in the Medical School. Professor Coghill.

The following courses to be conducted at Rosedale, will be offered if an enrollment of at least six students giving full time to study obtains at the opening of the summer session:

X.—GENERAL PATHOLOGY. (At Rosedale.) Five hours credit. Daily, 8 to 12 a.m. Lectures, laboratory and recitations. This course is devoted to the study of pathological processes, with especial emphasis on the manner in which lesions are produced, considerable time also being devoted to pathological technique.
Professor Major.

XI.—SPECIAL PATHOLOGY. (At Rosedale.) Two hours credit. Recitations and laboratory. This course takes up the study of special pathology, as illustrated by gross and microscopic specimens.
Professor Major.

XII.—POST-MORTEM PATHOLOGY. (At Rosedale.) Three hours credit. Assigned work. Each student is required to see and study microscopical sections of all autopsies performed during his third year.
Professor Major.

XIII.—ADVANCED BACTERIOLOGY AND PATHOLOGY. (At Rosedale.) Open to advanced students who have had sufficient preparation. Experimental work and original research in all branches of bacteriology, pathology and immunology, arranged to suit the needs of individual students. Hours to be arranged.
Professor Major.

(Advertisement)

The laboratory is a hand maiden of modern medicine whose importance grows constantly. Actual tests are such a help in diagnosis, replacing fallible human judgment with the certainty of science, that the increasing use of them is not to be wondered at. The reports of the clinical laboratories of the Battle Creek Sanitarium for 1916 show not only the number but the variety of the examinations necessary in a great institution of healing. The total was 62,582. As there were about 7,000 patients in the year, the average per patient was about nine.

Local Anesthesia in Surgery of the Colon and Rectum

Wm. M. Beach's conclusions fully detailed in the International Clinics for March on the subject are as follows:

First, Eliminating terrorism associated with operations under general anesthesia. —Second, Absence of post-operative distress and complications.

Third, The anesthesia is complete, thoroughly blocking the field, thus preventing shock.

Fourth, It persuades the patient to undergo an operation because the detention from business is shorter and post-operative pain is less.

Fifth, Skill in technic is achieved by virtue of the surgeon's care in gentle handling of a conscious patient.

Sixth, It will teach him to handle tissues more deftly in general anesthesia, realizing that much pain and tendency to infection follows tearing and mutilating of soft parts.

Seventh, Local anesthesia conserves the patient's peace of mind, as there are many who will testify to its efficiency and complete relief with so little inconvenience.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for April 1, 1917.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of — Post Office Address

Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society .....Topeka, Kansas

Editor—W. E. McVey .....Topeka, Kansas

Managing Editor—None.

Business Manager—None.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, Dr. Jas. W. May, Kansas City, Kansas, President; Dr. Chas. S. Huffman, Columbus, Kansas, Secretary; Dr. L. H. Munn, Topeka, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVey, Editor.

Sworn to and subscribed before me this 22d day of March, 1917.

L. Gandy,
Notary Public.

(Seal)

(My commission expires October 20, 1917.)

The Treatment and Prevention of Hay Fever

From the earliest times hay fever seems to have been associated, especially by the laity, with the flowering of various plants. The first definite proof that pollen was the causative factor was furnished by Blackley in 1873. He found that symptoms of hay fever did not appear until the pollen grains in the air had reached a certain number. He also showed that pollen may travel for great distances so that removal to a considerable distance from the location of flowering plants did not always afford relief.

Dunbar considered hay fever to be due to a toxin contained in the pollen and endeavored to produce an antitoxin by immunizing horses with pollen toxin or pollen protein in about the same way diphtheria antitoxin is produced. The object was to use the resulting antitoxic serum in the treatment of hay fever patients. More recent investigations show Dunbar's theory of antitoxin formation to be at fault. The symptoms of hay fever are now considered as being due to sensitization—in other words, to an anaphylactic condition.

Noon, working in Wright's laboratory, was the first to report successful results in the treatment of hay fever with subcutaneous injections of pollen extracts. More recently Clowes, Lovell, Lowdermilk, Ulrich, Koessler, Manning, Cooke, Wood, Goodale, Hitchens and Brown have confirmed the findings of Noon.

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Recent Progress in the Surgery of the Bile Passages.—A Plea for More Thorough Operations.

DANIEL N. EISENDRATH, A.B., M.D.,
Chicago, Ills.

Read before the Kansas Medical Society at Salina, Kansas, May 3, 1917.

Resume of History of Gall Stone Surgery

In the early history of this field of surgery, operative interference consisted in either opening the gall bladder and removing calculi and immediately suturing it, or of opening and draining the gall bladder after anchoring it to the parietal peritoneum. Both of these types of operations have been cast aside. The first method called cholecystendysis was soon discarded because it did not provide for proper drainage of the infected gall bladder. Anchoring of the gall bladder to the abdominal wall was followed by so many recurrences on account of the inability of the organ to contract properly when it was thus converted into an elongated tube with the outer end fixed, that it is but little used today. When cholecystostomy is done at the present time it is the practice of the majority of operators to permit the gall bladder to drop away from the abdominal wall as soon as a rubber tube has been fixed in the fundus of the organ. Choledochotomy was developed at an early stage in the history of gall stone surgery but was only done when stones could either be felt in the common or hepatic ducts or there were evidences of more or less obstruction in the shape of constant or intermittent jaundice or severe chills and fever (the so-called intermittent hepatic fever of Charcot).

We have now arrived at the stage where the removal of the gall bladder must be more frequently done than simple drainage. The common duct is now being opened and explored by the more progressive and experienced operators even when there are no so-called pathognomonic symptoms pointing to the presence of stones in the common duct and even when stones cannot be palpated.

The object of the present paper is to plead for even greater advances and I will attempt to show that removal of the gall bladder and drainage of the common duct should in the near future become the normal type of operation unless certain contraindications are present such as an extremely septic condition of the patient, advanced cardiac or renal disease and the presence of an advanced general peritonitis due to perforation of the gall bladder. Before attempting to give in detail the reasons for my plea for more thorough operations, let me briefly enumerate some of the more important of the recent advances in this field of surgery.

Newer Pathology of the Biliary Tract

The work of Aschoff and Bacmeister has been of the greatest importance in aiding us to understand how calculi are formed in the gall bladder and the changes in its wall resulting from the infected contents.

The investigations of these pathologists confirmed the view of Naunyn that stagnation of bile favors the formation of calculi, and they have further shown that cholesterin stones can be formed in sterile bile if stagnation exists. The cholesterin stones act as an irritant and favor infection so that as a result stratified cholesterin-pigment-calcium, cholesterin-calcium and pigment-calcium stones are formed. Of the three varieties of infection calculi those most frequently found are the first named (cholesterin-pigment-calcium calculi) which may occur in many shapes and sizes. During the period of formation of the primary cholesterin stones, and until infection of the sterile bile takes place, the presence of the calculi produces no clinical symptoms. But when infection oc-

curs, every symptom of cholecystitis or of choledochitis is the outward clinical manifestation of the presence of infection within the biliary tract and is not the result of the presence of the calculi as foreign bodies. The degree of pathological changes in the wall of the gall bladder and the extension of the infection to adjacent viscera is in direct proportion to the form and virulence of the organism involved. Aschoff was the first to direct attention to the important role played by the crypts of Luschka not only in the recurrence of infection in the gall bladder even after drainage and removal of calculi but he has also shown that cholesterin stones form (Fig. 1) in these crypts. These latter are glands extending through the entire thickness of the wall of the gall bladder. Microscopic examination of thousands of gall bladders has demonstrated that the changes which take place as the result of every reinfection of the wall of the gall bladder cause the organ to become incapable of contracting properly upon its contents. All stages from simple thickening to extensive ulceration and subsequent conversion of the wall into a mass of scar tissue can take place. The crypts of Luschka become dilated and filled with inflammatory products and are one of the most potent causes in the recurrence of infection. A knowledge of this newer pathology is necessary if one wishes to

FIG. 1.—Section of gallbladder showing stratified cholestrin calculi forming in the dilated crypts of Luschka (Aschoff).

understand the basis for our more frequent performance of removal of the gall bladder at the present day. The changes in the common duct are quite similar to those in the gall bladder. Its walls become thickened and rigid, the lumen becomes dilated and stagnation of the biliary stream follows. Extension of infection to the hepatic ducts and their radicles within the liver itself almost invariably accompanies an infection of the common duct.

We are beginning to appreciate the clinical importance of such intrahepatic infections in two ways, (a) either that the common duct becomes reinfected by the descent of the organism from the liver, or (b) that the calculi form within the liver and that these may be a cause of recurrence of symptoms when they are carried down stream and become lodged in the common duct giving rise to the symptoms of cholangitis in the form of jaundice, chills and fever. In one of my own cases after removing a large number of calculi from the common duct and gall bladder, a perfect shower of similar stones descended from the liver.

The relation of the pancreas to infection within the biliary tract is a most direct and intimate one owing to the fact that the lymphatics of the gall bladder, liver and pancreas are in direct connection with each other. (Fig. 2). The external evidences of such infection are often visible at operation in the form of an inflamed lymph node at the neck of the gall blad-

FIG. 2.—Lymphatics of gallbladder, bile ducts and pancreas.
1. Lymphnode at neck of gallbladder which acts as a relay between lymphatics of gallbladder and those of common duct.
2. Lymphnode along right edge of common duct which communicates by a number of lymphatic trunks with lymphnodes of pancreas.
3. And these in turn with interstitial lymphatics of the pancreas.

der or along the common duct and the spread of infection to the head of the pancreas in the form of a pancreatic lymphangitis and resultant interstitial pancreatitis is one of the most important additions to our knowledge of the relations of acute and chronic pancreatitis to biliary infection. Of not less importance is the fact to which Helly has directed attention, that the pancreas lies in most intimate relation to the common duct. The latter passes through the substance of the head of the pancreas in 62 per cent of individuals, while in 38 per cent it lies directly behind the pancreas. (Figs. 3 and 4). It is easy to understand how acute and chronic inflammatory enlargements of the head of the pancreas can cause compression of the lower third of the common duct and give rise to the same pathological changes and clinical symptoms as are usually considered to be characteristic of stones in the common duct.

Recent Progress in Diagnosis

The fact that jaundice is a rare symptom of an infection of the gall bladder is common knowledge. We have always been accustomed, however, to think that in patients with common duct stones, icterus must be an invariable symptom. The work of Kehr, Koerte and a recent publication of my own prove conclusively that icterus is absent in one out of every five cases of common duct or hepatic duct stones. The presence of chills and fever on the other hand indicate as a rule, infection within the chief bile ducts as distinguished from that of the gall bladder in which chills are an infrequent symptom. Other newer factors of importance in diagnosis are our changes in view as to radiation of pain and variations in the position of the gall bladder. The typical radiation of pain to the right shoulder is not considered as classical a symptom as in the past because we find that a comparatively large number of cases present radiation towards the back in the medial line or towards the left shoulder. The position of the gall bladder varies according to the degree of descent of the liver. I have seen a number of cases in which the gall bladder occupied

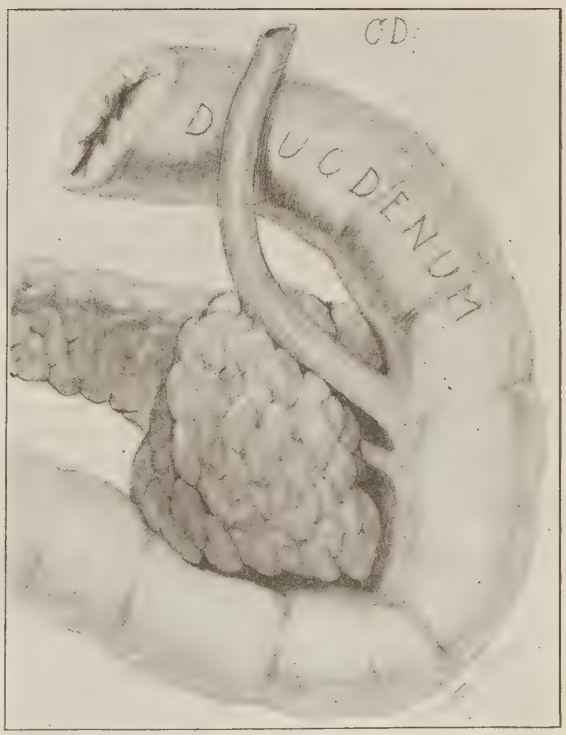

FIG. 3.—Posterior view of relations of common duct (C.D.) to head of pancreas, the latter not surrounding the duct. This condition found in 38% of dissections. (Zuckerkandl.)

the usual position of the appendix in the right iliac region.

The x-ray has not attained the state of perfection in the diagnosis of biliary that it has in the recognition of urinary calculi. In the hands of even the most expert radiographers not more than 50 per cent of the cases give a positive shadow and these are usually found during the course of the taking of plates after the ingestion of a Barium meal for the diagnosis of gastro-intestinal lesions. At the present day no case of suspected gall stone disease (unless the condition is a very urgent one) should be operated upon before a careful radiographic examination of the gastro-intestinal tract combined with the Rehfuss test is made.

Recent Improvements in Operative Technic

Through a study of the cases of recurrence of symptoms following operations upon the biliary passages, we have greatly improved our methods of operation. Such recurrences are either of true or false origin. Amongst the true, we include the genuine reformation of calculi in the gall bladder either as the result of the persistence or the lighting up of a former infection. Such calculi may be reformed within the lumen of the gall bladder itself or within the crypts of Luschka in the wall of the gall bladder. Reformation of calculi within the common or hepatic ducts can take place in the same manner. We are inclined, however, to believe that many of the calculi found at secondary operations in the common duct after cholecystectomy and even after a primary opening and removal of stones from the common duct are due to stones having been overlooked at the first operation or to stones which had been carried down from the liver, a condition only recently recognized clinically although known for a long time by pathologists as intrahepatic cholelithiasis.

Amongst the false causes of recurrence are overlooked calculi, adhesions, chronic pancreatitis, persistence or recurrence of infection, strictures or an error in diagnosis. Under the latter heading are included cases in which the case originally was one of tabes or a spinal tumor. Several cases have been recently reported where the recurrence was due to the reformation of a gall bladder in the dilated stump of a cystic duct after cholecystectomy, and in two cases calculi, probably newly formed, have been found in such a dilated stump. This would not occur if the cystic duct were amputated as should

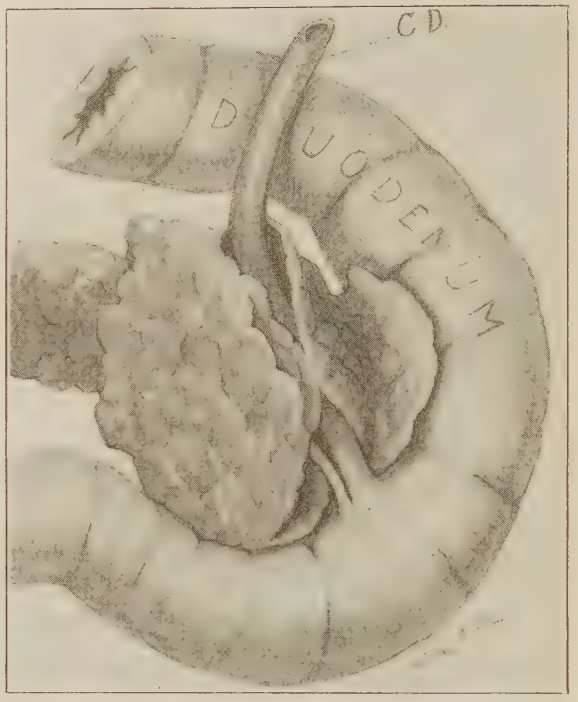

FIG. 4.—Posterior view of relations of common duct (C.D.) to head of pancreas. Latter surrounds duct completely. This is found in 62% of dissections. (Zuckerkandl.)

be done, quite close to the common duct.

A study of the newer pathology of biliary infection and the frequency of recurrence after a simple drainage of the gall bladder is one of the best arguments in favor of removal of the gall bladder and cystic duct whenever the experience of the operator and the condition of the patient will permit of such a step.

Drainage of the common duct is the most rational procedure after cholecystectomy, or as I prefer to do it, preceding such a step. In a recent article I have directed attention to the subject of "Overlooked Common Duct Stones". I became interested in 1912 in the subject of the overlooking of common and hepatic duct calculi at operation. After reading an article by Kehr who found calculi in either the hepatic or common ducts in seventeen or 46 per cent of thirty-six cases in which palpation of the common duct was negative, I began to open the common duct when certain conditions were present. These indications were (a) the presence of many small calculi in the gall bladder or cystic duct, (b) when the common duct was enlarged and its walls thick, (c) when chills, fever or icterus was present. In twelve of thirty-five cases where palpation of the common duct was negative, I found calculi (usually just above the am-

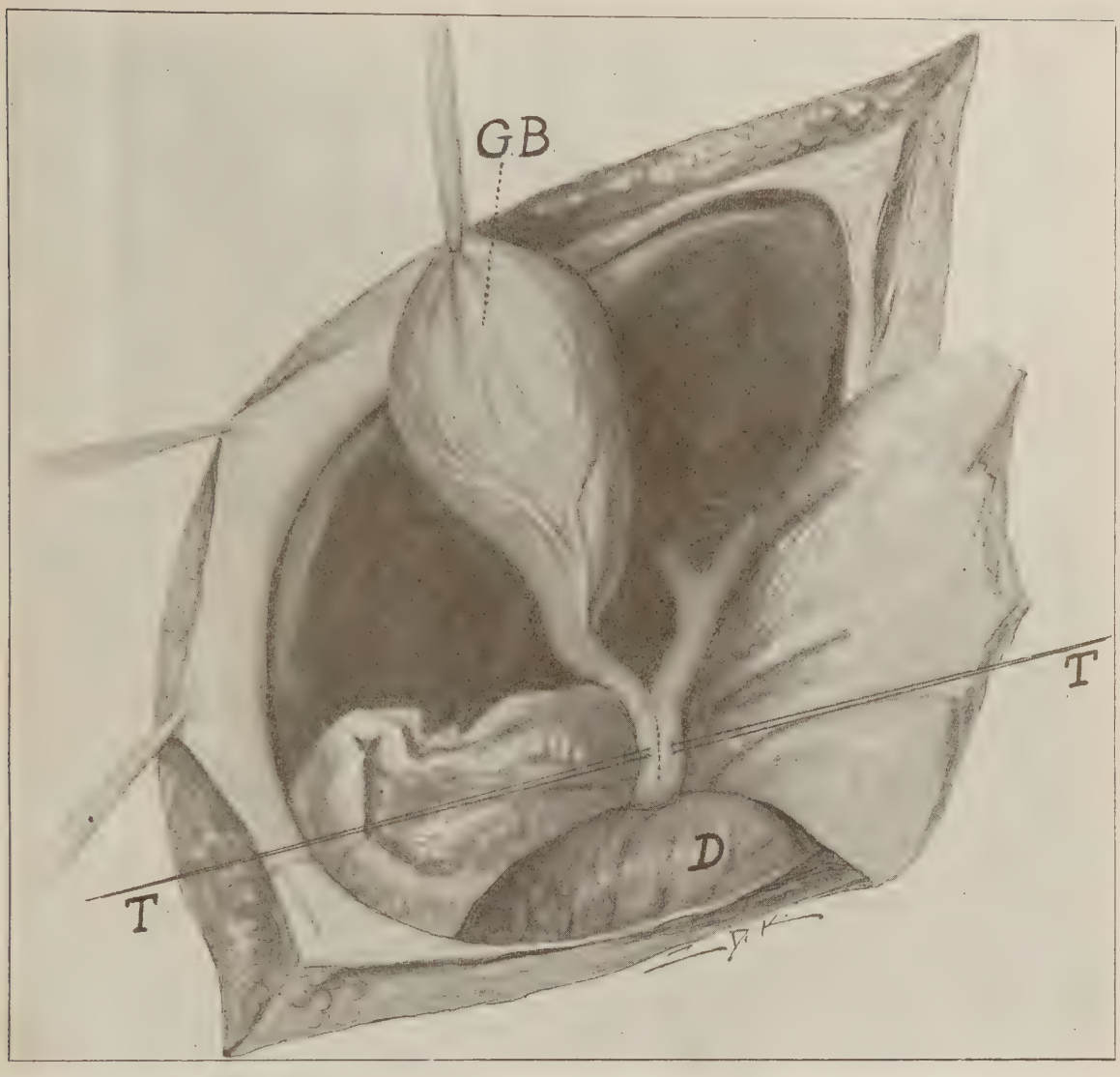

FIG. 5.—Step 1. Insertion of traction (T) sutures of fine catgut through wall before incising common duct, the duodeunm (D) is retracted downwards and the gallbladder (GB) emptied of its contents is drawn upwards.

pulla) varying in size from a millet seed to a split pea. In two additional cases which had been operated upon prior to the publication of my first paper I removed calculi the size of a navy bean, one in the first case and two in the second, in patients who had been previously operated upon by others. Since writing this paper I have had a third similar case and removed three calculi the size of a pea from the common duct in a patient upon whom a previous drainage and later removal of the gall bladder had been done by another surgeon. Since encountering these three cases I have added a fourth indication (either for drainage alone or for removal of calculi) for opening the common duct to those first suggested by Kehr, viz., the occurrence of chills, fevers or icterus in patients upon whom either drainage of the gall bladder or even removal of the organ with or without opening of the common duct had been done. In such patients I invariably open the common duct even though one cannot palpate a stone at the time of the secondary operation. Even after having opened the common duct, Deaver, Kehr, and others report finding stones at the second operation which had probably been overlooked at the time of the primary operation. When stones are present within the liver substance itself, it is impossible to avoid such recurrences, owing to the fact that calculi have been present by the hundred in the reported cases of intrahepatic cholelithiasis.

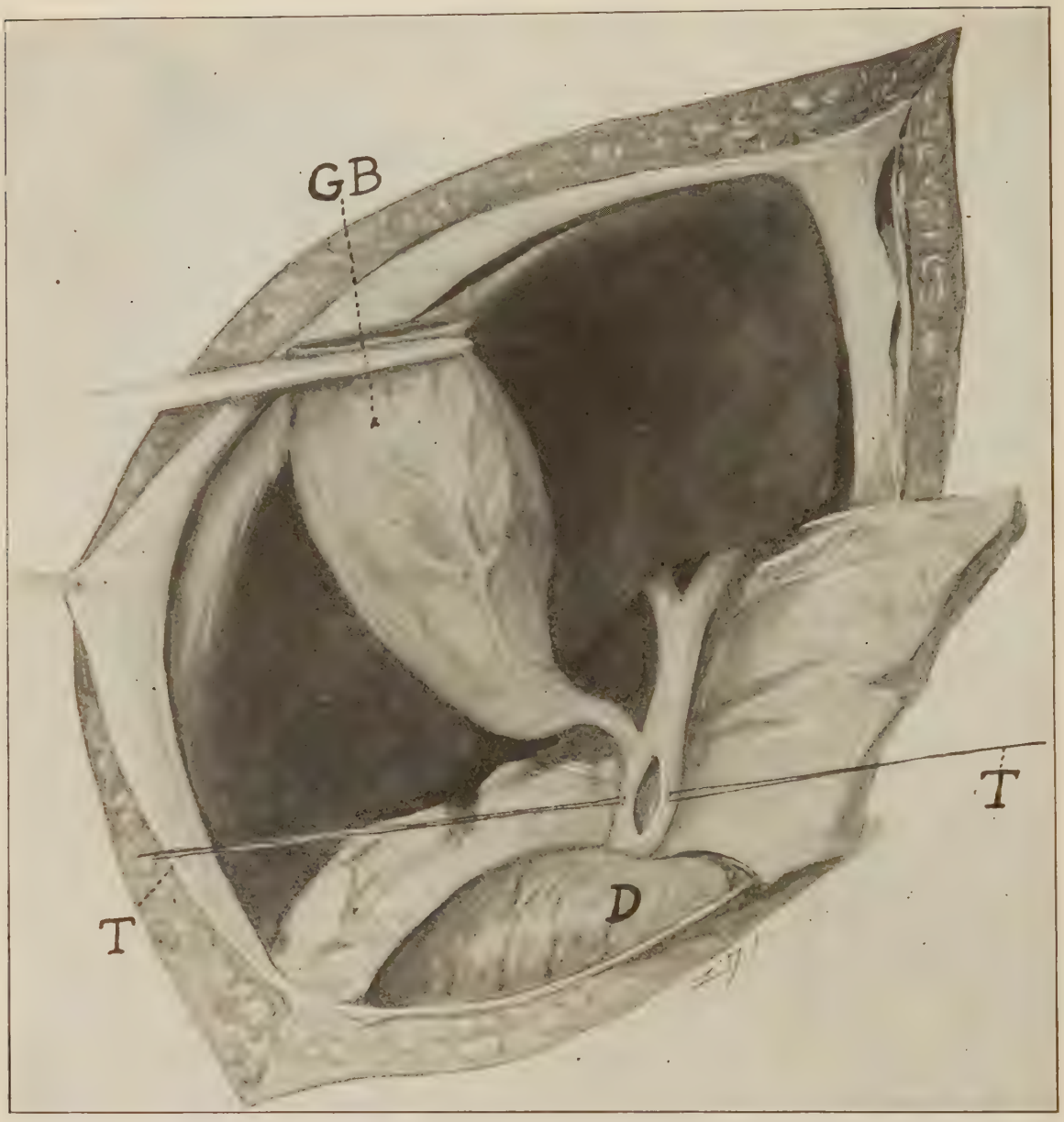

FIG. 6.—Step 2. Traction made upon fundus of gallbladder (G.B.) with artery forceps while edges of incision in common duct are pulled apart by traction sutures (T.T.) of 00 chromic gut. The hepatic ducts are first explored with a spoon and then the entire length of the common uct.

When Should We Remove the Gall Bladder and When Must One Add to This Step the Opening and Drainage of the Common Duct?

I would answer the first question as follows:

First: When the surgeon believes that the pathologic changes in the gall bladder are sufficiently advanced to justify the opinion that the organ is no longer able to perform its proper function. Such an indication is present when the gall bladder is thick and rigid and a great many small calculi were present at the time of operation. The former condition means such a high degree of inflammatory infiltration of the entire thickness of the gall bladder wall that it will be incapable of properly expelling the contents, which favors not only stagnation but the filling up of the ducts of Luschka with danger of true recurrence of calculi and the lighting up of infection as a secondary result. If many small calculi were present it is very easy to overlook them if imbedded in pockets between the many folds of mucous membrane which are found at the neck of the gall bladder and in the cystic duct itself.

Second. If an acute infection has supervened upon the chronic changes described under pathology the gall bladder should be removed if the patient is not septic and there are no contraindications in the shape of bad heart or kidneys. Even in the presence of extensive gangrene of the mucous membrane, I do not believe that it is advisable to leave the gall bladder, because it is a constant menace to the individual if not removed.

Third. If fistulæ exist after a previous operation, especially if they are due to a stricture of the cystic duct, then cholecystectomy is certainly indicated.

Fourth. If there is a history of recurrent attacks of gall bladder infection even if calculi are not present but the gall bladder shows the changes described under the first indication, we are rendering the patient a far greater service by removal of the gall bladder.

We know today that calculi themselves unless they cause mechanical obstruction of the neck of the gall bladder or of the cystic, hepatic or common ducts do not require as much consideration as the infection itself. We can have just as marked clinical symptoms from an infection in any portion of the biliary tract without calculi, as we see in those cases where calculi are present.

To answer the question in regard to when should we open the common duct, I can only reply that it is my own invariable practice to open the common duct for

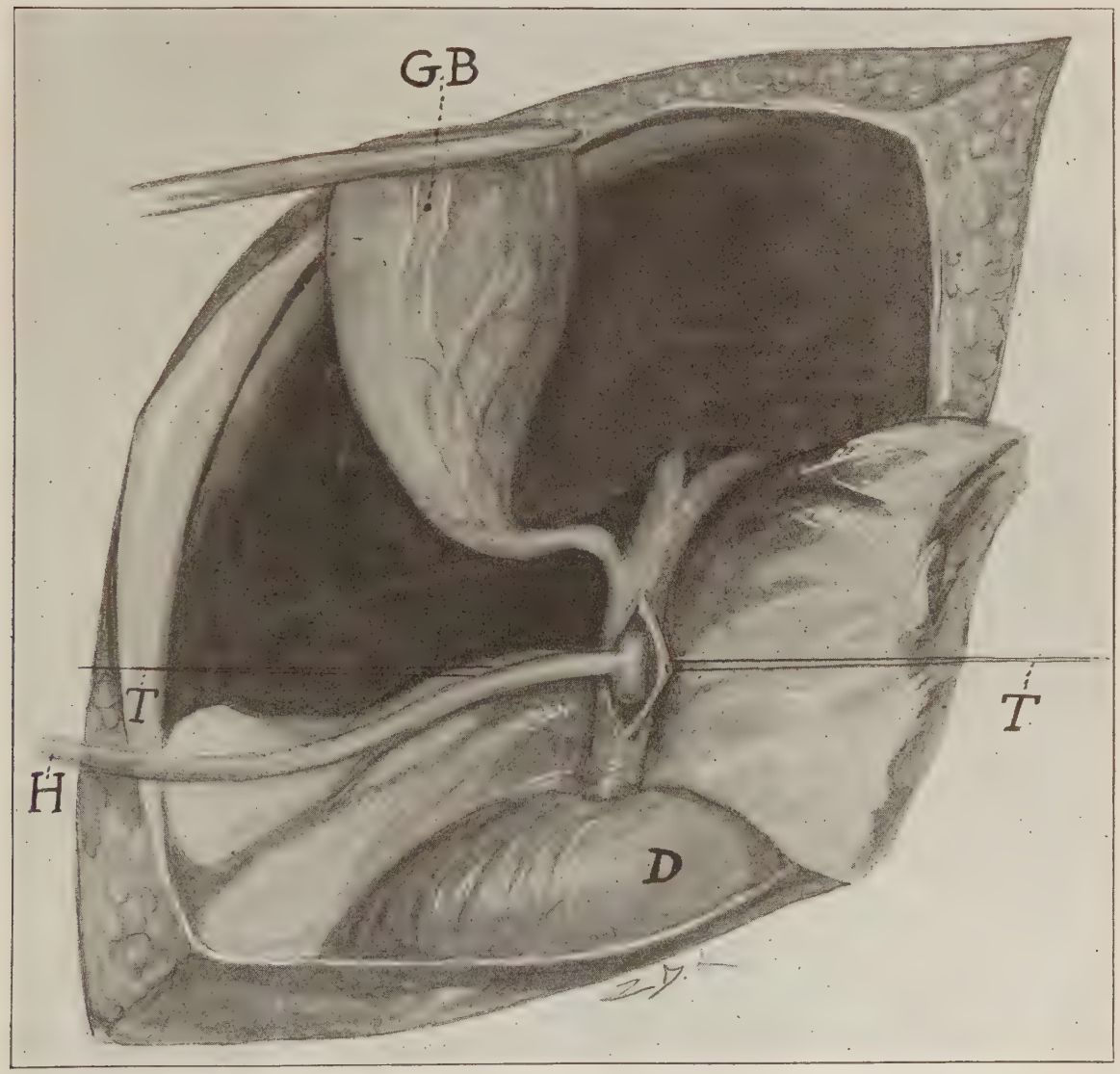

FIG. 7.—Step 3. Kehr T-shaped drainage tube inserted into common duct. Edges of incision in the duct are now brought together by fine chromic gut interrupted sutures, T.D. and G.B. as in previous figures.

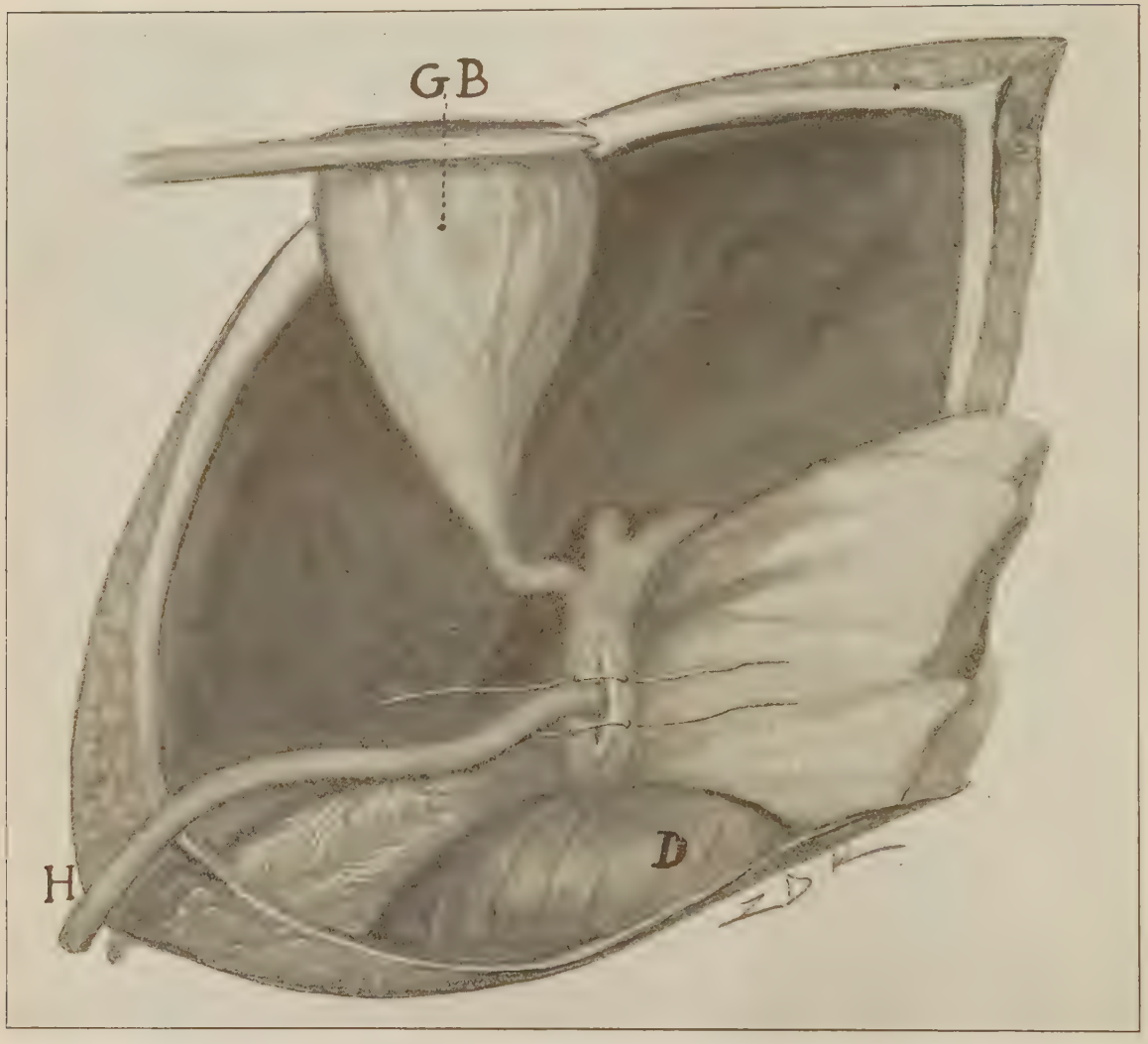

FIG. 8—Step 4. Sutures inserted through edges of incision in common duct to hold drainage tube (H) in place. D. and G.B. as in Figs. 6 and 7.

the purpose of searching for calculi in this and also in the hepatic ducts if one of the indications are present which were outlined above under the section on overlooked common duct calculi. By doing this, I have not increased my mortality and if the technic of opening the common duct to be now described is followed, I feel certain that it will become a much easier operation than the majority of surgeons believe. When we recall the fact that one in five cases of common duct calculi do not show the symptoms hitherto considered characteristic and even indispensable to the diagnosis of calculi located in the common or hepatic ducts or both, we can readily see that a more thorough operation is necessary in the future. Deaver in a recent paper states that he has overlooked common duct stones in five of thirty-three cases of simple drainage and even in one case after removal of the gall bladder. Since finding common or hepatic duct calculi in three of my own cases either drained or cholecystectomized by other surgeons and furthermore since I have found common duct calculi in twelve out of thirty-five cases where I opened the common duct upon the indications given above, I have become convinced of the necessity for the addition of common duct exploration with subsequent drainage in many more cases than in the past.

Technic of Opening Common Duct

The steps of the technic which I employ is best understood by a study of figures 5 to 8.

Step One. The incision to expose the gall bladder extends from the angle formed by the ensiform process and costal arch

downwards through the inner third of the left rectus muscle to a little above the level of the umbilicus. The patient's lumbar region has been previously elevated by the device attached to the operating tables in common use. The above incision not only permits the most perfect exposure of the common and hepatic ducts as well as of the gall bladder, but it enables one to directly inspect the stomach and duodenum. It is surprising how close to the anterior abdominal wall such an incision brings the principal bile passages.

Step Two. After having inspected the stomach and duodenum, the gall bladder is examined and if calculi are contained therein, these are removed by the generally accepted method of an incision through the fundus of the gall bladder after having aspirated its contents with the trocar and a rubber tube attached to a three ounce metal syringe.

Step Three. Exposure of the bile ducts. The fundus of the empty gall bladder is grasped by a long bladed artery forceps and an assistant instructed to make gentle traction in the direction of the right shoulder. This procedure also pulls the right lobe of the liver in the same direction, as first suggested by Mayo-Robson. The neck of the gall bladder, cystic, hepatic and common ducts are now exposed. If these structures are enveloped in adhesions, the exposure obtained enables one to separate and ligate the adhesions and to cover with suture, raw surfaces by sight and not by

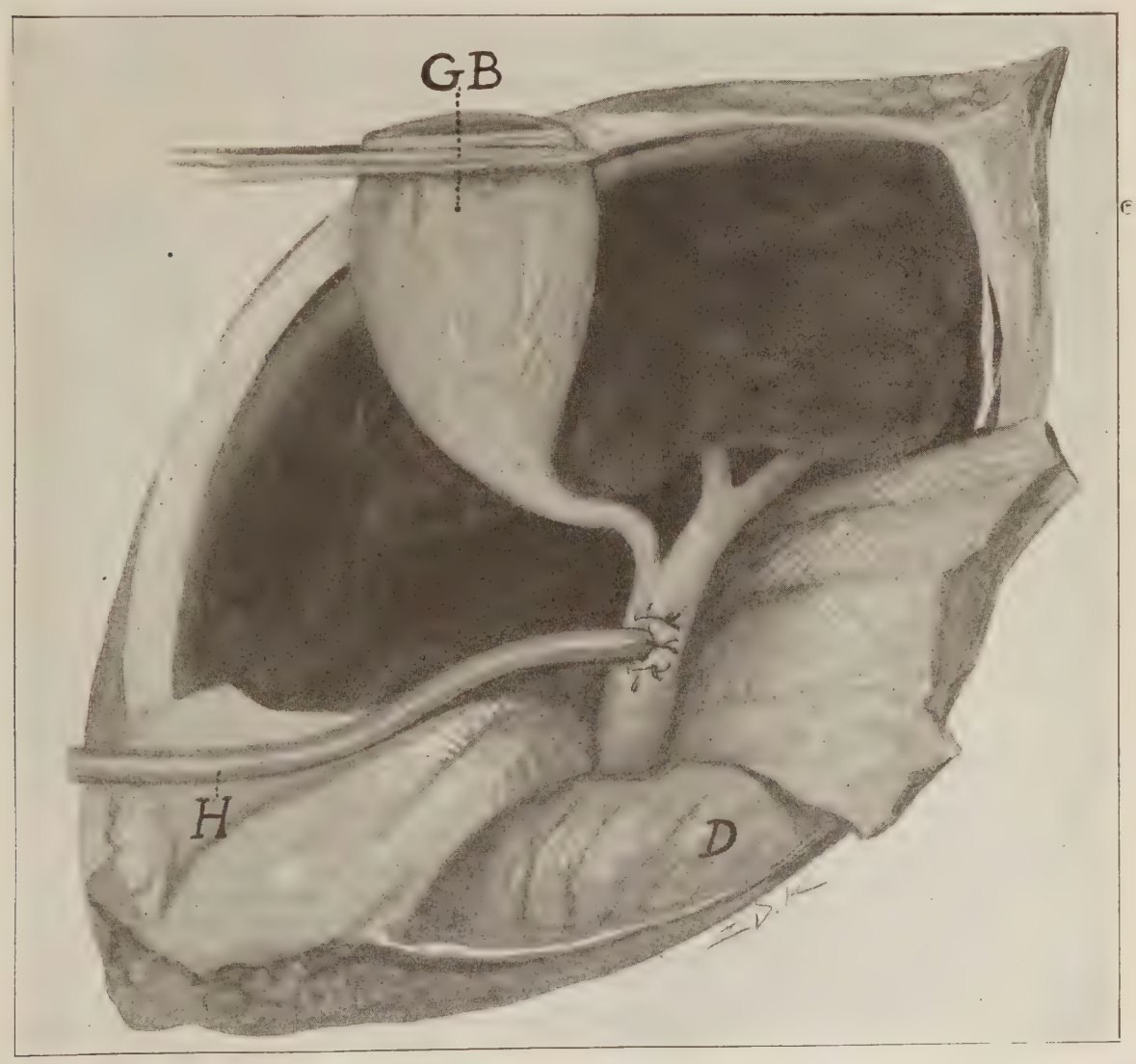

FIG. 9.—Appearance of operative field after sutures through wall of common duct have been tied over T tube (H), one plain catgut suture is passed through wall at middle of incision, D. and G.B. as in previous figures.

touch. A very important detail in securing a good exposure of the common duct is to have the proper retraction not only of the gall bladder and right lobe of the liver but also of the stomach, transverse colon and of the omentum toward the left and downwards and of the first portion of the duodenum in a purely downward direction. Such retraction is best secured (a) by the use of the Deaver and Kelly retractors, (b) by not packing too much gauze into the abdomen, and (c) by instructing the assistants (preferably only two being employed) only to keep up firm retraction and not to relax their holds from time to time, thus permitting the above viscera to drop into the field and cover the common duct.

Step Four. Exploration of Common and Hepatic Ducts. I prefer to employ instruments and suture material as fine as those used for eye operations in opening the common duct. The hepato-duodenal ligament is first identified as marking the right border of the envelope of peritoneum covering the common duct, portal vein and hepatic artery. By retraction of the viscera (especially the duodenum) around the common duct the latter is readily seen, covered by a thin layer of peritoneum which is divided by a fine scissors and the opening thus made widened by spreading it with a blunt-bladed, curved scissors. Two traction sutures of very fine (00) catgut are inserted with an extremely small needle (such as is used for eye work) through the wall of the common duct (Fig. 5) in its supraduodenal portion. There are a few small veins which run parallel to the duct and occasionally an anomalous small artery which passes transversely across the front of the duct. Bleeding from both of these vessels is easily controlled by a transfixion ligature. The duct is now incised with a fine preferably angular scissors for a distance of one-fourth to a half inch. It is a wise precaution before opening the common duct to place a gauze sponge into Morison's pouch over the right kidney. The opened common duct (Fig. 6) is now explored in an upward direction into the hepatic duct and then downwards until one feels certain that no calculi have been overlooked. A flexible probe is finally passed through the papilla of Vater in order to be sure that the lower end of the common duct is not obstructed.

Fifth Step. Drainage of the Common Duct. I prefer the T shaped rubber tube first used by Kehr and which is now in this country employed by Deaver and others, including myself. The opening in the common duct is closed around this tube (Figs. 7 and 8) with the same size chromic catgut which was employed in the traction sutures described in step four. The tube itself (whose horizontal limbs should only project about one-fourth of an inch beyond the vertical portion) is held in place with a plain catgut suture.

Step Six. Removal of the Gall Bladder. I prefer to do the cholecystectomy if one has decided that the pathological changes in the gall bladder demand its removal, after the common duct exploration and drainage, because the gall bladder is a very convenient tractor for the common duct. Kehr reverses the steps by first removing the gall bladder and cystic duct close to the common duct, then enlarging the cut end of the stump of the cystic duct so as to make an opening in the common duct large enough to explore both the latter and the hepatic duct, introducing his T tube through the same opening.

The technic of cholecystectomy requires no special description. I first carefully separate the neck of the gall bladder and cystic duct from the common duct before ligating the cystic artery which runs as a rule along the upper border of the cystic duct. The latter should be ligated as close as possible to the common duct in order to avoid the formation of a gall bladder in the dilated stump of the cystic duct. The careful separation just mentioned enables one to avoid injury of the common duct if as frequently occurs, the diverticula like enlargement at the neck of the gall bladder is adherent to the common duct or if any of the anomalies in the course of the bile ducts described in another article[1] are present.

A very small rubber tube is sutured with plain catgut to the ligated stump of the cystic duct to take care of a possible leakage from the same. Three strips of two inch wide gauze are placed around the common duct T tube, one of these strips being placed well down into Morison's pouch over the right kidney.

Removal of Drains

The gauze strips are pulled out at the end of eight days and a single narrow one put in their place. The T tube is allowed to remain from 14 to 21 days and can be easily removed at that time and it will do no harm if it remains even longer. I have never encountered a case in nearly forty choledochostomies where the tube could not be removed by employing gentle traction and have never seen a common duct fistula

follow its employment.

I have described in detail the above technic because it is an extension of our operative interference which it is the duty first, of every one who operates for gallstone disease to acquire, and second, because every medical man who refers a case of Cholelithiasis to a surgeon has the right to demand that most thorough operations be done in order to avoid as much as is in the surgeon's power the various recurrence previously mentioned. The day has passed where anyone who is not capable of doing more than a simple drainage of the gall bladder or possibly even its removal should be entrusted with such cases.

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[1]Surgical Clinics of Chicago, August, 1917, number. W. B. Saunders Co., Publishers, Philadelphia.

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President's Address, Kansas Hospital Association, Salina, Kansas, May 1, 1917.

S. Murdock, Jr., M.D., Sabetha, Kansas.

I desire to express to you my appreciation for the honor and distinction of being selected your President. The time is here when the public seeks in earnest to know the thoroughness and efficiency of every hospital and the object of this organization should be to establish a satisfactory standard. In our state small hospitals have been established in the majority of counties. During the past year I have visited many of them; they are usually located in a resident property with the doctor's office, a room equipped for operating, and an X-ray room; the kitchen department is handled in the same manner as the private home. A trained nurse with one or two understudies is in charge of the house. This constitutes the small hospital. In the larger hospitals of the tate I have observed identically the same conditions existing as in the smaller places with the exception that the kitchen department is handled on a larger scale and more after the methods employed by hotels. The bedrooms in the large hospital and in the small hospital are practically the same. In small hospitals the absence of a pathological laboratory is conspicuous. In larger hospitals there is usually a room set aside for a pathological laboratory, which is carefully locked up and not in use.

I have great respect for the men of the state, operating small hospitals; they are doing splendid, single-handed work, and are raising the standard of the profession in their respective communities. The man in charge of one of these small hospitals necessarily does better work than the physician or surgeon without a hospital. The hospitals of the state, in which team work is done, are a step in advance of the small hospitals; it follows that more careful diagnosis will be made where several men are looking over the same case and expressing individual opinions. The management of a hospital where a staff of physicians is recognized should require quarterly meetings of the staff and the cases handled in the hospital during this period thoroughly discussed. In this manner the hospital work will gradually attain a higher standard.

There is much talk among the hospital people as to whether the staff of a hospital should be an open or closed affair; each has its advantage. I desire to present to you the working of one closed hospital which I have had the opportunity of visiting during the last year. The equipment of this hospital was good; the place had all the ear-marks of an up-to-date, modern hospital, but this closed staff of fee-splitters with methods unmentionable, keeping out competent young men, should be condemned. I believe this hospital organization should get together on the proposition and present the matter to the surgeons operating in various hospitals, notifying them that practices of this kind will not be permitted; that hospital advantages will be denied to men who practice the division of fees, directly or indirectly; notifying them that only a square deal will be tolerated by the management of the hospitals; that every physician and surgeon must make his own charge and stand squarely upon his own merits. In this way the hospitals can retain the public respect, but if the fee-splitting practice is allowed to go unchallenged by the hospitals it will sooner or later reflect disgracefully upon the institution.

The necessity of the hospitals of Kansas being united in one organization is emphasized by the different labor bills which are being introduced in the various legislatures of this country; I refer to those bills pertaining to female labor; the minimum wage, the eight-hour law, and the one day off in seven. These are all of vital interest to the hospitals with training schools for nurses and the hospitals can only protect their interests by organization.

At this time when our country is involved in war, in the interest of economy

and efficiency, every hospital of this organization should make out a budget of its needs and necessities and place it in the hands of a committee that arrangements can be made to care for the same. The Committee on National Preparedness has asked the hospitals of the state for a list of their equipment and facilities. This you have done, but I sincerely hope you will pass a resolution at this time, tendering the services of each hospital, staff and nursing force, and make arrangements whereby this force can be mobilized into a unit and thus have an effective force to offer the Government. This work I believe can best be done through a committee which would ascertain the exact standard of the nursing forces available from each hospital in our organization. There are several movements on foot in Kansas at the present time with this object in view, but it seems to me that the Kansas hospitals united in this organization are better prepared to offer effective service than any other organization or plan in the State of Kansas.

MISCELLANEOUS.

Fifteen Hundred University Men Picked for Amdulance Work Abroad.

The War Department authorizes the following:

The United States Army Ambulance Corps will have 1,500 picked men from universities throughout the country for service abroad. At the request of the Surgeon General's Department, and acting directly under experienced officers detailed for this work, the Intercollegiate Intelligence Bureau has assembled students for service in the Ambulance Corps.

Among the colleges that have contributed one or more units to the corps are: Pennsylvania, Yale, Harvard, Princeton, Dartmouth, Williams, Johns Hopkins, Pittsburgh, Virginia, Iowa State College, University of Iowa, Hamlin, Lafayette, Purdue, Arizona, Indiana, Northwestern, Amherst, Tennessee, South Carolina, Florida, Washington and Lee, George Washington, Oberlin, Pennsylvania State, Leland Stanford, Illinois, Michigan, Swathmore, Brown, California, University of the South. The students are now awaiting enlistment by officers to be detailed by the War Department.

This contingent has been assembled for the United States Government to meet the need for medical service as requested by the French commission. These sanitary units are to be utilized by the French Government until the arrival of the American troops, when they will be turned over to the military forces of the United States. The total number to be enrolled in this corps will be over 4,000. All will be members of the Medical Enlisted Reserve Corps.

The corps is to be organized into units of thirty-six men each. These men will go into a training camp near Philadelphia for organization and they will sail just as soon as possible after their equipment is complete.

The large eastern and western universities and colleges have eagerly responded to this call for men. Over half the quota will be college men of the type which has done such praiseworthy work with the American Ambulance Field Service. The other members will likewise be men especially picked for the work.

On receipt of this call for men from the Intercollegiate Intelligence Bureau many institutions immediately formed special classes in military tactics, first-aid work, and in French. Thus, in addition to being of the highest possible quality as to personnel, these men will have been especially trained for this particular service. Further training will be given at the mobilization point before sailing.

Many young faculty members are enrolled who will probably hold some of the noncommissioned officers' positions. The commissioned officers are men of long experience, or of the Medical Reserve Officers' Corps.—Official Bulletin.

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Victor Corporation to Expand.

Preliminary to a notable expansion of manufacturing facilities, the Victor Electric Corporation has arranged for a large factory addition, to be erected at 218-228 South Robey Street, adjoining the present plant on the north. The present plant, which has been occupied for the last six years, is located at the northwest corner of Jackson Boulevard and South Robey Street, consisting of a four-story and basement building.

This structure, containing factory and general offices, has been outgrown and enlarged space and increased capacity have become imperative to meet the concern's requirements. To supply the rapidly growing demand for the company's products, the necessary steps are being taken to increase the facilities and equipment and expand the factory organization on an impressive scale.

THE JOURNAL
of The
Kansas Medical Society

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Our Duty.

The medical profession of this country seems very slow to realize that a real emergency exists. The government has been persistently calling for medical men for the great army it is preparing to send to the battle field.

Our profession is not unpatriotic. There has never yet been a crisis in the affairs of the world to which the medical profession did not rise en masse and respond to the call of humanity. It is certainly only because the need has not been fully appreciated that our men have not come forward.

The estimated requirement is 20,000 medical officers for the 2,000,000 men, but will that number answer all the needs of this war? The allies are asking for help from the medical profession of the United States. England has exhausted its resources and there are not enough men left to properly care for the people at home. In densely populated districts there is one physician for every 4,000 inhabitants and in the sparsely settled areas one for every 2,500 inhabitants—and these men are now subject to call.

Should the war continue for several years it is reasonable to expect that the United States will send several millions of men to the front and this will mean additional thousands of medical officers. In the officering of our army, ten medical officers are to be provided for each one thousand men. It is said that England has found it necessary to provide nineteen medical officers for each thousand soldiers. If then the estimate of 20,000 medical officers appears to be inadequate for the probable needs of the present plans, what is to happen when even this number is so slowly accounted for?

It has been suggested that the whole medical profession be drafted and its members ordered to such duties as the needs may demand. This is perhaps the easiest solution of the problem and, while not particularly creditable to the loyalty of our profession, will more quickly and surely meet the present emergency. Those under 45 years of age are very likely to be sent to the front and those over that age will be used for various duties connected with the care of camps and the examination of recruits.

The number of medical men now asked for is about one-seventh of the total registered physicians in the United States. There are somewhat more than 140,000 registered physicians of whom probably one-half are over 45 years of age and 30 per cent of the remainder are disqualified for service for various reasons.

There are 122 registered male physicians practicing in Topeka. Of this number 60 are over 45 years of age and 32 are over 55 years of age. This is perhaps a fair average of the age status of the whole profession. If out of 70,000 physicians under 46 years of age 30 per cent are disqualified, there will be left 49,000 from which to draw the needed medical officers. It is safe to predict that before the war is ended every one of these men will be called into active service.

Our patriotism, our loyalty to the cause of humanity and our professional pride demand our prompt response to this call. Every physician in Kansas should tender his services to the government, send in his application for a commission in some department of the medical service, and let those appointed for the purpose decide whether his services will be required.

Medical Mobilization.

Major Seth A. Hammel, M.C., K.N.G., has recently been appointed to examine candidates for commissions in the Medical Officers' Reserve Corps. Applications should be filled out and presented to Dr. Hammel.

It is unnecessary to send applications to the Surgeon General's office until they have been completed and the examination has been made.

The first group of sixty-eight officers of the Medical Officers' Reserve Corps has

been assigned to active duty and ordered to report at the medical officers' training camp at Fort Riley on June 1, 1917, for a course of instruction.

Those who have received commissions in the Medical Officers' Reserve Corps should send in their acceptance at once. No orders will be issued to them until their acceptance has been received by the Surgeon General's office.

The number of medical officers required for the completed army is estimated at twenty thousand, or about one-seventh of the registered physicians of the United States. On this basis the state of Kansas should furnish about four hundred. From all we can learn this is a much larger number than the records will show commissions for.

STATE COMMITTEE OF NATIONAL DEFENSE.—KANSAS.

George M. Gray, Chairman, Portsmouth Building, Kansas City; James W. May, President State Medical Society, Portsmouth Building, Kansas City; Charles S. Huffman, Secretary State Medical Society, Columbus; President-elect, State Medical Society; Secretary-elect, State Medical Society; David W. Basham, Schweiter Building, Wichita; S. J. Crumbine, Secretary State Board of Health, Orpheum Building, Topeka; Henry A. Dykes, Secretary State Board of Examiners, Lebanon; Samuel Murdock, Jr., Sabetha; Robert B. Stewart, New England Building, Topeka; Joseph E. Sawtell, 632 Orville Avenue, Kansas City; *Surgeon, Ft. Riley; *Surgeon, Ft. Leavenworth; *Herbert L. Scales, 506 Avenue A, Hutchinson; Walter S. Sutton, 650 Everett Avenue, Kansas City.

*Examiners.

MEDICAL OFFICERS' RESERVE CORPS.

The Medical Officers' Reserve Corps is open to all doctors under fifty-five years of age who are physically and mentally qualified for service. Applications for membership can be made to the local examining boards now in session in all the large cities and towns, or to the nearest medical examiner.

Accepted applicants are commissioned by the President of the United States, with the entering rank of First Lieutenant in the Regular Army Corps, and if called to active duty, are paid $2,000 a year. Those who are rejected have given proof of their patriotism.

We, officers of the Reserve Corps, ask you to join it, because we believe that every doctor should offer to serve; should do this now, and without reservation. The medical military authorities must decide how, when, and where we shall serve. We trust them to use us wisely and with as much consideration for home interests as for the needs of the army, knowing that any duty to which we may be called is an essential part of adequate preparation which insures efficient action. We believe that the doctor who bears no added burden during this war and who becomes richer because of it, brings no credit to his country, his profession, or to himself.

Sincerely yours,

THE MEMBERS OF THE GENERAL MEDICAL BOARD OF THE COUNCIL OF NATIONAL DEFENSE.

MEDICAL STUDENTS AND THE DRAFT.

The report of the Conference Committee of the Senate and House, on the bill authorizing the President to increase the military staff of the United States by selective draft, makes certain exemptions. These do not include the medical student; they do include theological students. Why theological students should be exempt we do not know; possibly it is on the supposition that they are "conscientious objectors." We can hardly believe it possible that Congress will pass this law without recognizing the importance of sustaining the continued production of medical men. France and England have suffered from neglecting or overlooking this point. The great cry in France and in England is for more medical men, and the need probably is just as great with the Central Powers, if the facts were known. The first demand on us after we became one of the allies was for medical men. If Congress accepts the conference report as it stands, the first "regulation" made by the War Department should exempt medical students.—Journal American Medical Association, May 19, 1917.

URGENT NEED FOR YOUNG MEN FOR THE MEDICAL CORPS.

Some weeks ago we called attention to the fact that when the full quota of the regular army, as enlarged by the act of June 3, 1916, was called, there would be immediate and positive need for a large increase in the number of permanent medical officers. The call has now been made, and this enlarged regular army will soon be manned and equipped. As enlarged, it

will consist of 293,000 men, and will need 2,051 medical officers. There are at the present time, all told, barely 550. The immediate need, therefore, is for 1,500 young medical men who are willing to make the army their chosen field by joining the Medical Corps. The life and professional work of the regular army medical officer has many attractions. It nowadays offers opportunities for the scientifically inclined that it did not offer until recent years. The position is one of honor, one that commands respect, and one that presents many opportunities for the ambitious. Considering the number of men available for the position, there should be no difficulty in securing the needed 1,500. Basing the statement on the number of physicians who have graduated during the last six years, there are at least 20,000 who are eligible, so far as age and professional standing are concerned. The age limit until January 1, 1918, is 34 years; after that, 32 years. It cannot be emphasized too strongly that the needs are urgent, and that those who are considering making application for membership in the Medical Corps should do so at once.—Journal American Medical Association, May 26, 1917.

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Food, Beverages and Milk Products in the Dietary

The supply of sanitary food and milk products is a problem which is given scant attention in the usual medical training, and is a subject on which the general practitioner is usually not well informed.

He should be. "How to keep well," and the right use of foods for this purpose; the foods necessary to rebuild depleted conditions; those required for postoperative treatment, for nursing mothers, and for babies, are vital questions for every practicing physician.

Physicians should also be informed as to methods and foods which will help to solve the problem of the high cost of living. For example, it is known that oleomargarine is cheaper than butter; but is it generally known that oleomargarine and butter are essentially of equal digestibility? That some of the best oleomargarine contains 89 per cent of fat and 9 per cent of water, while butter has less fat—85 per cent; and more water—11 per cent? Oleomargarine is made in large quantities, under sanitary conditions and government inspection, from selected oleo oils and butter fats. It is colored with butter color, or, if sold uncolored, is 10 cents less per pound. Oleomargarine remains firm at a higher temperature than butter, which is an item in its favor in warm climates and where ice is expensive. All these considerations should induce physicians to study the merits of oleomargarine as a food product.

Physicians should also be familiar with the relative food values of wheat, corn, oats, barley and other breakfast foods; with rice, macaroni, and even bread. It is known that protein is the essential constituent of all meats, eggs, fish and milk; that protein is found in vegetable foods. It is known also that the carbohydrates, sugars and starches, are found in the great staple products, such as potatoes, beans, corn, etc. But what are the proportions? Which foods are best adapted to particular conditions? Does the baby need protein or carbohydrates? What is known about the merits and uses of baking powders, gelatine, grape juice, malted foods, malted milks, condensed milks and the dozens of other well known products that are advertised for the dietary?

It is with a view of bringing the subject of food and milk products to the attention of readers that this article is published. Particular attention is called to such products as are advertised in this issue. Many of these announcements give specific information as to the nature of the products; tell how they are manufactured; give the protein and carbohydrate content; suggest conditions in which they are indicated, etc. They contain much valuable information for physicians.

In this issue the following will be found:

Mead's Dextri-Maltose. . . . . Page iv
Horlick's Malted Milk . . . . . Page v
Calumet Baking Powder . . . . . Page xi
Jiffy-Jell. . . . . Page xv
Pettijohn's Rolled Wheat with Bran Flakes. . . . . Page xvii
Borden's Eagle Brand Condensed Milk. . . . . Page xvii
Quaker Oats . . . . . Page xxiii
Ovaltine, malt extract, milk and eggs. . . . . Page xxviii

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Proceedings of the Fifty-First Annual Meeting of the Kansas Medical Society, Held at Salina, Kansas, May 2, 3, 4, 1917.

MEETING OF THE COUNCIL.

The Council of the Kansas Medical Society met at Convention Hall, Wednesday, May 2, at 9 A.M.

No business was transacted, and the Council adjourned to meet at the call of the President.

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At the hour designated, the regular ses-

sion of the annual meeting of the Kansas Medical Society convened to listen to the address of the President, and the reading and discussion of the various papers on the program.

The second day of the general session was devoted to papers presented by physicians residing out of the state. Drs. Charles A. L. Reed, of Cincinnati; Charles Lewis Mix, of Chicago; Philip H. Kreuscher, of Chicago; Daniel N. Eisendrath, of Chicago, and P. T. Bohan, of Kansas City, presented papers.

MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates convened Wednesday, May 2, 1917, at 7:30 P.M.

The meeting was called to order by the Secretary, and a quorum was found to be present. On motion the rules were suspended, and the reading of the minutes of the last meeting was dispensed with. The next order of business was the reports of the officers.

SECRETARY'S REPORT.

To the House of Delegates:

I desire to submit the following report for the year ending May 2, 1917.

FINANCIAL REPORT.

Balance on hand May 6, 1916, divided as follows:		
Medical defense	$1,410.73	
General fund	4,452.81	
Total		$ 5,863.54
Amount received from all sources for the year ending May 2, 1917:		
Dues from members	$4,074.00	
Received from editor of Journal	725.08	
Total amount received		$ 4,799.08
Total		$10,662.62
Amount paid out for the year ending May 2, 1917:		
Medical defense	$ 567.45	
General fund	2,487.78	
Total		$ 3,055.23
Balance on hand May 2, 1917		$ 7.607.39
Statement of how the two funds now stand:		
Medical defense	$2,201.28	
General fund	5,406.11	
Total		$ 7,607.39

Our Society never was in a better condition during its long history, than it is today. We have approximately 1,500 members in good standing, and the majority of whom are active in the work of the component County Societies, District Societies and the State Society. The influence of the team work that is being done by the medical profession of the state is being felt and observed in many of the institutions and departments of this state.

I again want to emphasize the splendid work being done by the Medical Defense. That committee has spent less than $700 during the past year, which is the smallest amount expended in any one year since the plan of medical defense was adopted. That means that 1,500 members of the medical profession have been protected and defended from suits for alleged malpractice at a cost of less than fifty cents each, for the entire year, which I think is a remarkable showing. I think the able management of this department by the Medical Defense Committee, and the excellent service rendered by Mr. E. D. McKeever, our attorney, has deterred many from bringing suits that would otherwise have been brought.

Our Society has now been called upon by the National Defense organization, to assist in our National Defense plans, by recommending of this body for medical officers in the Reserve Corps. One of the greatest problems in war is to have an efficient medical staff, and I feel that Kansas will respond cheerfully and readily as she has always done when called upon in times of peril. I want to urge upon every representative of the component County Societies who are present, when you go home to take up the matter of national defense in your County Society, and select those who will be available for service. I feel it my duty to call attention to what might be expected of you with this war cloud now hovering over our country. What the final outcome will be, no one knows. Everyone knows we are on our way, but no one knows where we are going. It is hoped we will have an early peace.

Your Secretary was first elected in 1903, at the Concordia meeting, and for the confidence reposed in him by members of this Society, he has held the office up to the present time, making a continuous service of fourteen years. In 1903 we had a paid-up membership of 200, without any definite plan or organization. Since that time we have gradually increased in membership. We organized along plans suggested by the A. M. A. and now we have County Societies in every county where there are enough members to form an organization, who are component parts of the State Society, and eligible for fellowship in the A. M. A. We also have one of the best State Medical Journals published in the United States. I have made comparisons with the Journals published in other states, and can unhesitatingly say that ours is equal to any of them, and better than many.

I have already mentioned what the Medical Defense has done. Our finances are on a sound basis. We have carried on all the work that I have outlined above, expenses incident to the publication of the Journal, Medical Defense, and expenses connected with the Secretary's office, and there is still a balance of more than $8,000 in the treasury of the Society.

It is up to you to determine and pass judgment on the work of your Secretary. In finishing my work as your Secretary, I want to say that I have done the best I could. Some other man might have accomplished more.

In conclusion I wish to express my appreciation and gratitude for the confidence reposed in me by the profession of the state, and especially to those splendid men whom you elected to the presidency of your Society during my period of service, who rendered me such valuable service by their advice and assistance.

Respectfully,
CHAS. S. HUFFMAN, Secretary.

TREASURER'S REPORT.

To the House of Delegates:

I desire to submit the following report for the year ending May 2, 1917:

Balance on hand May 6, 1916		$ 5,863.54
Divided as follows:		
Medical defense	$1,410.73	
General fund	4,452.81	
Cash received from your Secretary		$ 4,799.08
Total		$10,662.62
Amount paid out to May 2, 1917:		
Defense fund	$ 567.45	
General fund	2,487.78	
Total		$ 3,055.23
Balance on hand subject to check		$ 7,607.39

L. H. MUNN, Treasurer.

REPORTS OF COUNCILLORS.

Dr. C. W. Reynolds, Councillor of the First District, made the following report:

All counties are organized. The aim is to hold meetings quarterly, except in Atchison County, where they meet monthly except in the months of July and August.

Attendance at meetings is good in about one-half of the societies, and light in others.

During the last six months the Councillor has made a great effort to increase the membership by writing a personal letter to each physician in the district who are not members, also enclosing an application blank, and at the same time asking the Secretary to write them. More than one hundred such letters were written. The result so far as I have been able to get reports has been quite satisfactory. Two societies — Jackson and Jefferson — have arranged to hold joint meetings each spring and fall, which has created increased interest.

Since it has been understood that the Councillors are not expected to visit County Societies, no visits were made. Lectures or addresses have been delivered in several societies—just how many I have been unable to learn.

DR. C. W. REYNOLDS, Councillor.

The following report was received from Dr. C. C. Goddard, Councillor of the Second District:

Number of counties organized in District? All.

Date when meetings are held? Some bi-monthly, others every month.

Attendance at meetings? Average fair in all, very good in Wyandotte County.

What efforts have been made to increase the membership of County Societies? Invitation to all practicing in counties who are eligible and are in good standing. Above 90 per cent are members.

Interest taken in the work of the component County Societies? Very enthusiastic in Wyandotte and Leavenworth Counties, in others, although they are paid up, members do not attend meetings as well as they should.

How many counties visited by Councillor during the year? Have visited three. Everything being as it should be and devoid of altercations, visits were not deemed necessary. Have attended Wyandotte, Anderson and Leavenworth Societies.

Special work? Delivered two lectures—one at Salina and the other at Decatur-Norton Society.

DR. C. C. GODDARD, Councillor.

Dr. O. P. Davis, Councillor of the Fourth District, made the following report:

The Fourth District comprises the following nine counties: Clay, Riley, Pottawatomie, Wabaunsee, Geary, Dickinson, Morris, Lyon and Shawnee. The counties are all organized, with the exception of Pottawatomie and Wabaunsee. The physicians of the last named two counties are for the most part members of the State Society through a connection with a component society in a county adjacent. It seems hard for the physicians of these two counties to get together and maintain interest in organizations of their own, principally on account of inconvenient railroad connections between the scattering

towns of these two counties. The railroad service is good east and west, but poor or impossible north and south. Therefore the doctors join the Society most convenient for them to attend, even though outside of their own county. Moreover the Golden Belt Society, which meets quarterly, furnishes the medical men of these counties, as well as those of other counties which compose it, an organization quite as satisfactory for professional and social purposes as does the usual small county society. I have occasionally consulted with representative medical men of these counties as to the feasibility of effecting organizations there, and have been led to believe that such organizations as might be accomplished would be merely nominal and ineffective.

The following is the membership of the organized counties, up to April 1: Clay 13, Riley 13, Geary 5, Dickinson 14, Morris 9, Lyon 40, Shawnee 87—total 181. This is a little less than one-half of all the physicians in the district, counting homeopaths, eclectic and retired physicians. This ratio holds pretty nearly the same throughout the state.

The interest in the Society meetings is greater, of course, in some of the counties than in others. Where the Society membership is very small, and the doctors isolated from one another, petty animosities are more apt to be cherished, and these keep them away from the meetings. The smaller the Society, the more intimately the members are thrown together when they meet. Sometimes the members knowing this shun the meetings. In the larger societies men who do not like one another may still attend the meetings without having to come into very close contact. Petty jealousies and friction between members often keep societies small. Men not only refuse to attend, but they refuse to join, because somebody else they dislike belongs.

An effort was made in several counties of this district, about a year ago, to enlarge the membership in the several County Societies. Mr. Van Duser, working under the auspices of the American Medical Association, and of this Society, added quite a few members to the rolls. However, I do not think he did as much as we expected of him. He was a likeable gentleman and was effective in many ways, but his work was too transient. The field must not only be scratched, but deeply and repeatedly cultivated if there is to be a substantial yield, and there must be created more than a spasmodic interest. The medical man must be made to realize that it is worth his while not only to become but to stay a member. I do not disparage Billy Sunday methods if they get members who stick.

I do not know just what special work has been carried on in the various societies. In Shawnee, the officers have been very active along these lines, and have procured nearly every month some man of distinction from a distance, and these star features have brought out an extraordinary attendance at the meetings.

I have not made official visits to any of the counties, although I have tried to keep in touch with them in other ways. I have been ready and have offered to visit any of the County Societies at any time that might be suggested or desired, or whenever it might seem that I might be of any service. I have thus acted in accordance with what has appeared of late years to be the prevailing sentiment of the Council and House of Delegates. Only a year or so ago some of the Councillors were severely criticised for imposing expense upon the Society by what were called unnecessary visits in their districts, and it was tacitly agreed that only visits of real necessity or looking toward some special end should be made. I have no doubt that now the Councillors will be criticised—at least some of them—for neglecting their districts by keeping away from them. For my part, I prefer that the charge against me be that of omission rather than that of commission. Further, I have felt that I have been serving the Society at large along the special lines delegated to me in the Defense Board work with a sufficient expenditure of my time to compensate, in some measure, for my delinquencies as District Councillor.

DR. O. P. DAVIS, Councillor.

Dr. K. P. Mason, Councillor of the Seventh District, made the following report:

Number of counties organized in district? Five.

Date when meetings are held? Quarterly, excepting Mitchell, which meets monthly.

Attendance at meetings? Average attendance is small.

What efforts have been made to increase the membership of County Societies? Called upon the individuals and written to the secretaries of the different societies.

Interest taken in the work of the component County Societies? Shows improvement.

How many counties visited by the Coun-

cillor during the year? None except Mitchell.

Lectures or addresses delivered by other than the local membership? Lectures given by Drs. Sudler, Menninger and Kenney.

If any unorganized counties in district, why? Rooks is unorganized. Writing letters of no avail. Have been unable to make them a personal visit.

DR. K. P. MASON, Councillor.

The following report was received from Dr. H. N. Moses, Councillor of the Eighth District:

Number of counties organized in district? All organized singly or in groups. Lincoln County, Saline County, Ottawa County, including Central Kansas (Russell and Ellsworth).

Date when meetings are held? Lincoln County, second Thursday; Saline County, second Thursday; Central Kansas, second Wednesday January, April, July and October.

Attendance at meetings? Average, fifteen, Saline County; average six, Lincoln County; average six to eight, Central Kansas.

What efforts have been made to increase the membership of County Societies? Personal solicitation by Secretaries.

Interest taken in the work of the component County Societies? Saline County, declining interest due to local conditions; Lincoln County, seven meetings; Central Kansas, variable interest, sometimes only business meetings.

How many counties visited by the Councillor during the year? Saline County and Lincoln County visited by Councillor. Arrangements made for meeting of Central Kansas, but learned it was only a business meeting and postponed same.

Special work? Lincoln County took initial step in asking that the State Board consider the question of allowing applicants to pass by reciprocity who are from low grade schools. See May Journal.

Lectures or addresses delivered by other than the local membership? Saline County, three speakers from the Kansas Lecture Bureau; Central Kansas planning on clinic and outside speakers; Lincoln County, none.

Recommendations? Question of State Board recognizing by reciprocity graduates of low grade schools.

DR. N. H. MOSES, Councillor.

Dr. D. R. Stoner, Councillor of the Tenth District, made the following report:

Number of counties organized in district? Eight, organized as the Tri-County Medical Society: Gove, Trego, Logan, Wallace, Sherman, Thomas, Sheridan and Graham.

Date when meetings are held? May 20, 1916; June 15, 1916; July 18, 1916; September 12, 1916, and February 20, 1917.

Attendance at meetings? May, 1916, 10; June, 1916, 25; July, 1916, 10; September, 1916, 10; February, 1917, 12.

What efforts have been made to increase the membership of County Societies? Correspondence and personal interview.

Interest taken in the work of the component County Societies? Only one Society in Tenth Councillor District—the Tri-County Medical Society. The individual interest of the physicians has markedly increased since the preceding year.

How many counties visited by the Councillor during the year? Gove, Trego, Graham, Sheridan, Thomas and Logan.

Special work? Special lectures only by outside and visiting physicians.

Lectures or addresses delivered by other than the local membership? Dr. Chas. Caton, Concordia; Dr. W. E. Mowry, Salina; Dr. C. D. Blake, Ellis; Dr. W. S. Lathrop, Norton.

If any unorganized counties in district, why? Tri-County Medical Society only medical society organized in the Tenth District.

Miscellaneous? The interest in medical society work has been very satisfactory as a whole in the district the past year. The past year having been quite a prosperous year in a general way for the medical profession of Northwestern Kansas, also quite a number of medical men having located in this district, it is hoped that the following year will see quite a notable increase in our membership.

Recommendations? The enthusiasm of Medical Society meetings in our district has been especially most noticeable when some visiting doctors from outside the district have been made a special number on the program. This practice will be continued, also joint meetings with neighboring Councillor Districts and local Medical Societies adjoining urged.

DR. D. R. STONER, Councillor.

The following report was received from Dr. E. M. Carter, Councillor of the Twelfth District:

Number of counties organized in district? All counties are represented in the Southwest Society except Commanche, Grant and Stanton.

Date when meetings are held? Every third month, last Friday night in month.

Attendance at meetings? Good. From ten to twenty.

What efforts have been made to increase the membership of County Societies? Personal solicitation and correspondence. Our membership is now twenty-three.

Interest taken in the work of the component County Societies? Good.

How many counties visited by the Councillor during the year? Seward and Ford. Ford is not in this district, but met many doctors from this district there.

If any unorganized counties in district, why? All counties are represented in the Southwest Society except one, as stated in answer to first question. Cannot get Commanche County interested. They do not answer my letters. Grant and Stanton Counties have only one or two physicians each.

Miscellaneous? I would have made a trip to Commanche County if I had received any encouragement or answer to inquiry by mail.

Recommendations? That the State Society send a special man to Commanche and Clark Counties (Englewood Branch) to organize a Society, or induce them to join the Southwest Society, and pay him for the time and expense. Clark County has two railroads, but most of the physicians are in towns on the Englewood Branch.

DR. E. M. CARTER, Councillor.

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE.

Your Defense Board begs to submit the following report covering its work to date, and with special reference to the work of the past year:

There have been thirty-one cases altogether in the four and one-half years during which the business of the Board has been conducted under the present plan of having one attorney in charge of all the cases, and in this whole period no judgment for malpractice or alleged malpractice has been obtained against any member of this Society. The only adverse verdict that has ever been obtained was that of George vs. Shannon, away back in the days when the defense movement was new, and before we had systematic legal supervision of our business.

Since January 1, 1913, we have one and the same attorney to look after all the cases. This has proved the best and most efficient plan, for it enables the attorney to specialize, and to give particular and special attention to this class of cases. The results, above stated, justify this plan. Not only has no plaintiff obtained a judgment against any member for damages or even for costs, but not even a motion for a new trial has been necessary in any case on the part of the defendants. Many suits have been threatened against members, that have never materialized. It is believed that the systematic and vigorous defense available to the members, and the co-operative relations of the members along these lines, have had a tendency to discourage the once very prevalent and growing tendency to bring such suits.

The attorney employed by the Board, Mr. E. D. McKeever, of Topeka, has been prompt and vigorous in the defense of all the suits, and all members of the Society defended by him have been highly pleased with his management of their cases. Prior to the institution of this system of defense in our organization, numerous judgments were obtained against members for alleged malpractice, and since this defense feature has been inaugurated, several judgments have been obtained against physicians outside of this Society and not defended by this Board. The results of this system here again show the great benefit of co-operation and expert talent in protecting the members of this Society. As a result of the successful work of this Society's medical defense system, solicitors for insurance companies are now urging our members to take insurance against judgments in their companies, stating that the attorney for this Board will in all cases be present and assist in or have charge of the defense, this of course wholly at the expense of the Society without any additional compensation from the insurance company. This statement has been based on what has actually happened in a number of cases. So that the Kansas Medical Society is now engaged in furnishing the main defense in many cases in which the insurance companies are interested, and these companies thus are getting good fees and the benefit of our attorney without additional charge. While this is a high testimonial to the efficiency of our system, and that too from unexpected quarters, it would seem that our members are thus paying high charges to the insurance companies for protection against judgments alone. To save this unnecessary tax on our membership, some plan should be devised whereby the protection against possible judgments may be taken care of on a mutual or actual cost basis.

The Society may expect to hear more fully about this in the very near future, and this Board bespeaks for the plan the earnest consideration of every member.

The following is a list of the cases as they now stand. A number of these cases are still pending and are yet to be tried. Some are pending which will never be tried. In several of the cases still pending the plaintiffs are begging for a small settlement to cover expenses and attorney fees, which is being steadfastly refused. It is the established policy and rule of this Board never to compromise or settle out of court, but to defend through the court of last resort.

The status and disposition of these cases will be designated below by numerals, as follows:

(1) Refers to cases where we have obtained a verdict in our favor.

(2) Refers to cases where the jury has hung and the case afterward dismissed and ended.

(3) Refers to cases demurred out of court and thus ended or dismissed by motion.

(4) Refers to cases which appear to have been dropped never to be revived.

(5) Refers to cases pending and undisposed of.

(6) Refers to cases where the defendant, over our protest and against our advice, has paid a nominal sum and settled, thus ending the case.

(7) Refers to cases declined as not proper cases for defense by this Board.

Ashley vs. Liston ..... (2)
Bowman vs. Dawson, Shawnee County..... (4)
Brooks vs. Davis, Wyandotte County..... (4)
Bridges vs. Edwards, Neosho County..... (3)
Burnett vs. Peak, Pratt County..... (6)
Wolff vs. Caruthers, Rooks County..... (3)
Gill vs. Nason, Wyandotte County..... (6)
Josephine Gustafson vs. Powell, Shawnee County.. (3)
C. F. Gustafson vs. Powell, Shawnee County..... (3)
McCune vs. Jeffers, Cheyenne County ..... (4)
Mr. Halliday vs. Wortman & Mills, Linn County.. (6)
Mrs. Halliday vs. Wortman & Mills, Linn County. (6)
Heck vs. Mowry & Neptune, Saline County..... (5)
Johnson vs. Allen, Allen County..... (5)
Kelce vs. Williams & Williams, Crawford County.. (4)
Kruger vs. Lindley, Osborne County ..... (1)
Lloyd vs. Young & Brock, Cowley County ..... (2)
McRoberts vs. Clopper, Wyandotte County..... (5)
Mitchell vs. Russell, Wyandotte County ..... (5)
Norton vs. Weaver, Cloud County ..... (3)
Needler vs. Lutz, Saline County ..... (5)
Paulich vs. Nipple, Crawford County ..... (5)
Quick vs. Young & Brock, Cowley County..... (3)
Roberts vs. Leavell, Cowley County..... (1)
Anna Renner vs. Henderson & McNamara, Neosho County. . . . . (5)
John J. Renner vs. Henderson & McNamara, Neosho County ..... (5)
Stillman vs. Jones, Douglas County ..... (3)
Woodruff vs. McDonald & Pigman, Cloud County.. (4)
Woolrey vs. Neville, Allen County ..... (3)
Steward vs. McGuire, Wilson County..... (5)
Hamilton vs. Culbertson, Kansas City, Missouri.. (7)
Trice vs. Hammel, Shawnee County..... (3)

The vouchers listed below cover the expenditures for medical defense during the past year:

1916	
No. 16—E. D. McKeever, salary for May and June.	$100.00
No. 17—O. P. Davis, printing for Board (letter heads).	2.50
No. 18—E. D. McKeever, salary for July and August.	100.00
No. 19—E. D. McKeever, salary for September and October and expenses and per diem, Russell case	118.47
No. 20—E. D. McKeever, salary for November and December	100.00
1917	
No. 21—E. D. McKeever, salary for January and February	$100.00
No. 22—E. D. McKeever, trip to Erie, case of Renner vs. Henderson & McNamara, and per diem	23.57
No. 23—E. D. McKeever, trip to Salina, case Needler vs. Lutz, and per diem.....	22.91
No. 24—E. D. McKeever, salary for March and April.	100.00
No. 25—Journal Kansas Medical Society ads, one-half page for 1916 and 1917....	110.00
Total expenditures	$777.45

This Board, as well as the Society at large, has sustained a most grievous loss in the recent death of Dr. H. B. Caffey. He was a man of lofty principles, unusual ability and unflinching devotion to the interests and ideals of our profession. His counsel in this Board as well as in the administrative bodies of the Society, was always judicious and sound. His colleagues of this Board lament his untimely death and the loss of his genial and helpful presence at our deliberations.

Respectfully submitted,
O. P. DAVIS, Chairman.
K. P. MASON.

EDITOR'S REPORT.

The editor of the Journal begs to submit the following report of the business of the Journal from May, 1916, to May, 1917:

Cash received from all sources		$3,563.14
Cash expended		2,881.81
Cash on hand		$ 681.33
Bills due and unpaid		377.10
Earnings for the year		$1,058.53
Received from advertising	$2,372.59	
Received from subscriptions	13.50	
Received from miscellaneous	177.05	
Received from State Society.....	1,000.00	$3,563.14
Expended for publishing Journal...	$1,548.82	
Expended for other printing.....	65.25	
Expended for mailing expense	31.25	
Expended for postage	134.00	
Expended for miscellaneous expense	102.49	

Expended for salary	1,000.00	$2,881.81

Average number copies	1,677
Largest number copies	1,950
Smallest number copies	1,600
Average cost per issue	$240.43

Had there been no delay in the payment of bills due April 1, we would have been able to report a small net profit in cash receipts, in spite of the fact that the cost of publication for the year was $536.18 more than for last year.

Several factors are concerned in the increased cost of publication, but the least certain or dependable one is the cost of paper. Every kind of material used in our publication has also increased in cost, but we are unable to increase our advertising rates at this time.

We had intended to increase the number of pages of the Journal, but on account of the price of paper we have added the equivalent of five pages by having the matter set solid. While this does not look quite so well, it gives us greater accommodations for material that has been accumulating, and at much less cost than the addition of more pages.

Very respectfully submitted,
DR. W. E. MCVEY, Editor.

The following amendments to the By-Laws were introduced, and under the rules laid over one day before being considered:

A proposed amendment to the By-Laws, repealing Section 8, of Chapter X, and substituting therefor the following:

Section 8. A member removing from one county to another shall automatically become a member of that component society in whose jurisdiction he resides, without other formality than the transfer of his name on the membership rolls, and the Secretary of this Society shall make such transfer when informed of such change of residence, and shall notify the secretaries of the component societies concerned of such transfer and they shall record the same.

A proposed amendment to the By-Laws, adding to Section 14 of Chapter X, the following:

And a member of any component society who is shown in said report to be in suspension shall not be reinstated by said component society without formal action at a regular meeting of such society, following upon a favorable report of its board of censors, said action to be certified to the Secretary of this Society with notice of the member's reinstatement.

On motion the House of Delegates adjourned to meet Friday morning, May 4.

MEETING OF THE HOUSE OF DELEGATES.

The House of Delegates convened Friday morning, May 4, 1917, at 9 A.M.

After the roll call, the following order of business was transacted:

REPORT OF THE AUDITING COMMITTEE.

We, the Auditing Committee, beg leave to report that we have made an examination of the books of the Secretary and Treasurer, going over the receipts and disbursements, and find that they balance and are correct.

J. E. SAWTELL,
K. P. MASON,
Auditing Committee.

Next in order was the election of officers. Dr. Charles S. Huffman, of Columbus, was elected President, by the unanimous vote of the Society, and the following officers were elected:

Vice President — Dr. G. A. Blasdel, Hutchinson.

Vice President — Dr. E. E. Morrison, Great Bend.

Vice President — Dr. H. E. Haskins, Kingman.

Secretary — Dr. J. F. Hassig, Kansas City.

Treasurer—Dr. L. H. Munn, Topeka.

Delegate to A. M. A.—Dr. J. W. May, Kansas City.

Motion was made and carried that the delegates be allowed to select their own alternates to the meeting of the A. M. A.

COUNCILLORS.

Dr. P. S. Mitchell, of Iola, was elected Councillor for the Third District, to fill the vacancy caused by the death of Dr. H. B. Caffey.

Fourth District—Dr. O. P. Davis, Topeka.

Fifth District — Dr. J. J. Brownlee, Hutchinson.

The standing of the Council is as follows:

First District — Dr. C. W. Reynolds, term expires 1918.

Second District — Dr. C. C. Goddard, Leavenworth, term expires 1918.

Third District—Dr. P. S. Mitchell, Iola, term expires 1919.

Fourth District—Dr. O. P. Davis, Topeka, term expires 1920.

Fifth District — Dr. J. J. Brownlee, Hutchinson, term expires 1920.

Sixth District — Dr. E. S. Edgerton, Wichita, term expires 1919.

Seventh District — Dr. K. P. Mason, Cawker City, term expires 1918.

Eighth District—Dr. H. N. Moses, Salina, term expires 1918.

Ninth District—Dr. C. S. Kenney, Norton, term expires 1919.

Tenth District—Dr. D. R. Stoner, Quinter, term expires 1919.

Eleventh District — Dr. J. A. Dillon, Larned, term expires 1919.

Twelfth District — Dr. E. M. Carter, Greensburg, term expires 1919.

Dr. O. P. Davis, of Topeka, was elected Chairman of the Medical Defense Board, and Dr. D. R. Stoner, of Quinter, was elected member of this Board to fill the unexpired term of Dr. H. B. Caffey, deceased.

The standing of the Medical Defense Board is as follows:

Dr. O. P. Davis, Chairman, term expires 1920.

Dr. K. P. Mason, term expires 1918.

Dr. D. R. Stoner, term expires 1919.

The following amendments to the By-Laws were adopted:

A proposed amendment to the By-Laws, repealing Section 8 of Chapter X, and substituting therefor the following:

Section 8. A member removing from one county to another shall automatically become a member of that component society in whose jurisdiction he resides, without other formality than the transfer of his name on the membership rolls, and the Secretary of this Society shall make such transfer when informed of such change of residence, and shall notify the secretaries of the component societies concerned, of such transfer, and they shall record the same.

A proposed amendment to the By-Laws, adding to Section 14 of Chapter X, the following:

"And a member of any component society who is shown in said report to be in suspension shall not be reinstated by said component society without formal action at a regular meeting of such society, following upon a favorable report of its board of censors, said action to be certified to the Secretary of this Society with notice of the member's reinstatement."

The following resolution was introduced:

Be it Resolved, That the House of Delegates of the Kansas Medical Society recommend to every hospital in the state that it take a stand against the secret division of fees, and that it announce this fact to the public by posting in one or more conspicuous places in the building, or in any other manner the hospital management may see fit.

The Committee on Necrology made the following report:

DEATH OF WM. F. FAIRBANKS.

The time is now at hand when in accordance with the befitting provisions of this Society, we rest from our labors to pay honor and respect to the memory of those of our members who have departed this life since the last annual meeting.

William F. Fairbanks was born October 18, 1860, at Mantau, Ohio, and died July 22, 1916, at Kansas City. On October 15, 1904, he was married to Jennie E. McCall, of Hiram, Ohio, who still survives him.

At the age of fifteen he began teaching a country day school. When twenty-one years of age he graduated from Hiram College, at Hiram, Ohio, of which James A. Garfield, who was afterwards President of the United States, was at that time president. After spending a year in Arizona and New Mexico, he was made principal of the grade schools in Parkman, Ohio, where he taught for two years. He then entered the medical department of the Western Reserve University, at Cleveland, Ohio, and graduated from this institution in 1886. He immediately began the practice of medicine in Montville, Ohio, near Cleveland, where he remained for nine years. In 1895 he located in Kansas City, Mo., and after remaining there one year removed to Kansas City, Kan. He joined the Wyandotte County Medical Society soon after moving to this county and always took great interest in the various medical societies to which he belonged. He was at one time President of the Wyandotte County Medical Society and probably no one did more to build up the membership than did Dr. Fairbanks. He was a regular attendant of the State Society for many years and it was a very great disappointment to him that his health would not permit him to attend one year ago. He was a hard student and kept well informed on every advance in medicine. During the last months of his illness when the condition of his eyes would not permit him to read, he employed someone to come and read to him. He enjoyed the largest family practice of any one in Kansas City and also did a great amount of corporation work. He was always just as ready to answer a call from the poor as from the rich, and not only would be give his services to the poor, but also money with which to buy medicine, when he felt that this was needed.

Dr. Fairbanks was a remarkable man in

many respects. If he ever had an enemy, no one ever knew it. No one ever saw him angry or heard him speak illy of any person. He practiced the Golden Rule in all his dealings with mankind and it can truly be said that he was the living embodiment of the principles of medical ethics. No injustice to him was ever met with resentment. He was gifted with wit and humor but never made use of these faculties to the embarrassment of another. His charitable spirit was filled with human sympathies. The splendid example of his life is one that is worthy of emulation and might be likened to the Bridge Builder:

A good man, going a lone highway,
Came at the evening, cold and gray,
To a chasm vast and deep and wide.
The good man crossed in the twilight dim;
The sullen stream had no fear for him;
But he turned when safe on the other side
And built a bridge to span the tide.

"Good sir," said a fellow-pilgrim near,
You are wasting your strength with building here;
Your journey will end and with the ending day,
You never again will pass this way;
You've crossed the chasm deep and wide,
Why build you this bridge at eventide?"

"Good friend, in the path I have come," he said,
"There followeth after me today,
A youth whose feet must pass this way.
This chasm that has been as naught to me,
To that fair-haired youth may a pitfall be;
He, too, must cross in the twilight dim;
Good friend, I am building this bridge for him."

DEATH OF DR. W. S. SUTTON.

The Great Reaper of the Universe has levied a heavy toll on the members of the Wyandotte County Medical Society during the past year, not only in members but also in taking away some of her brightest jewels.

Walter S. Sutton, of Kansas City, had been a member of this society since 1910, up to the time of his death, November 10, 1916. He was born in Utica, N. Y., April 5, 1877, and when ten years of age moved with his parents to Western Kansas, where he lived for nine years. In the fall of 1896 he entered the University of Kansas, from which he graduated in 1900 with the degree of Bachelor of Arts. The high character of his scholarship was the prophecy of a brilliant career for the future. For a year after his graduation he did post-graduate work at the University, at the same time acting as graduate assistant in zoology, and in 1901 received the degree of Master of Arts. He then entered Columbia University, New York, where he remained a year, taking post-graduate work in zoology, in which subject he won a fellowship. Following this he entered the College of Physicians and Surgeons in New York, from which institution he received the degree of Doctor of Medicine in 1907, and immediately began a term of hospital service in Roosevelt Hospital. In August, 1909, he entered the practice of his profession in Kansas City. About this time he was made Assistant Professor of Surgery in the School of Medicine of the University of Kansas. In 1911 he was advanced to the position of Associate Professor of Surgery. In February, 1915, he was invited to become a member of the surgical staff of the Mrs. Mary Payne Whitney unit of the American Ambulance Hospital in France. He remained there nearly six months, the last two months of which he was Chief of the Surgical Staff of the Hospital. Soon after he was made a member of the medical faculty of the University of Kansas, he was appointed a member of the Administrative Committee of the School of Medicine, upon which he continued to serve up to the time of his death except the interim while abroad. It was my pleasure to serve with him on this committee during this time and it was there I learned to know him best and to appreciate his admirable traits of character. Whenever there was difficult and perplexing problems to be considered, the discussion of Dr. Sutton was always attended with the greatest consideration, for it was known to all that whatever his final analysis was to be, it would be in keeping with the highest ideals, regardless of diplomatic results. As a debater he always manifested a courteous consideration for the opinion of others, yet he was strong and fearless in the defense of his own views. If need be he could compromise on a policy, but when a principle was involved the whole power of his genious was always arrayed in the defense of justice and the honor of the institution he represented. He loved the truth because it was the truth. He sought to avoid error and in everything to be exact. He possessed a brilliant mind with great analytical force. To these qualities add his indomitable energy and the foundation is laid upon which he reared a monument of success for the brief period of his life. His success as a teacher, his skill as a diagnostician and surgeon gained for him the title of eminence, not only among his co-workers, but throughout the profession of the country, wherever he was known. Had he been permitted to live out the al-

loted time of man, his brilliant career, though brief, affords every evidence that his name would have gone down in history as one of the greatest men in the medical profession of this country.

In his death we have lost an honored and gifted member; one whose loyalty and fidelity to friend and cause was worthy of the fullest confidence.

DEATH OF DR. H. B. CAFFEY.

Whereas, Dr. Hugh B. Caffey, of Pittsburg, Kansas, departed this life on April 16, 1917, after a short illness; and

Whereas, the wife and daughter have lost a devoted husband and father, the community in which he lived an upright citizen, public spirited and one who was always interested in the welfare of his home town and the people with whom he associated; and

Whereas, Dr. Caffey was especially devoted to his profession, and in the advancement of the science of medicine,

Therefore, Be it resolved by the Kansas Medical Society in the Fifty-First Annual Convention assembled, that in the death of Dr. H. B. Caffey, Councillor of the Third District, it has lost one of its best friends, and one to whom the Society is indebted for the growth and upbuilding of our present organization, and that our Society extend to Mrs. Caffey and daughter our heartfelt sympathy.

Be it further resolved, that a copy of these resolutions be entered in the minutes of the Society, and a copy sent to his family.

Invitations were extended to the Society, from Lawrence, Hutchinson, Kansas City, Topeka, and Arkansas City, for the next annual meeting. Kansas City was selected as the place for the next meeting to be held.

Motion for adjournment was made and seconded, and the meeting adjourned.

SOCIETY NOTES.

DECATUR-NORTON COUNTY SOCIETY.

A regular meeting of the Decatur-Norton County Medical Society was held at the opera house in Logan, Kansas, Thursday, May 24, 1917. The meeting was called to order by the president, R. M. Tinney. The reading of the minutes of last meeting was passed over.

The members present were A. G. Davis, F. E. Richmond, M. H. Norrish, R. M. Tinney, O. M. Cassell, C. W. Cole, F. D. Kennedy, C. S. Kenney, W. C. Lathrop and H. O. Hardesty. Visitors were Drs. Finnigan, J. J. Sippy, Harry H. Johnson, L. R. Findley, Von Diest, D. D. Haggard, E. A. Nelson, L. R. Golden and I. L. Parker—a total of twenty.

Dr. Davis read a very able and interesting paper on "The Psychological Side of the Patient, the Anesthetic and Anesthetist."

Dr. Sippy gave a very able address on "The Medical Examination of School Children," in which he emphasized the necessity of examining children often. He recommended the hiring of an all time health officer, and a trained nurse for the schools. This lecture was attended by the public.

Dr. Kenney urged the physicians to make an early diagnosis of tuberculosis in order that proper treatment of all cases could be instituted early.

The Round Table discussion on "How Can the Medical Profession Best Serve Its Country During the War" brought out a lively discussion and the following resolutions were passed unanimously:

"Whereas, the United States of America being engaged in war and men of all pursuits being thoroughly patriotic, the medical profession being among them, in that many have already offered their services, and many more will as soon as needed.

"Therefore, be it resolved that we commend these physicians for their patriotism and to help relieve the financial burdens of those so called, that it is the sense of this society that the men who remain at home to attend to the business of these patriots to the best of their ability, and upon the return of these physicians turn over their business together with one-third of the net proceeds.

"Be it further resolved: Believing implicitly in the Monroe Doctrine, that we deplore and will discourage the attempt of any physician to locate permanently in a community temporarily vacated by any

17—*Medical Journal* *Rich*

physician who has gone to the front.

"Be it further resolved: That a copy of these resolutions be spread on the minutes of this society and published in the official Journal of the Kansas Medical Society.

"E. A. Nelson,
"F. E. Richmond,
"C. S. Kenney,
"Committee.

"Decatur-Norton County Medical Society."

Dr. A. E. Nelson, Dr. Harry H. Johnson and Dr. Chapman were elected to membership.

Drs. C. C. Goddard, W. J. V. Deacon and J. J. Sippy were elected to honorary membership without dues.

C. S. KENNEY, Secretary.

MIAMI COUNTY SOCIETY.

The May meeting of the Miami County Medical Society was held at the State Hospital, Osawatomie, on Friday, May 25. At the afternoon session a series of operations were performed by Dr. J. G. Sheldon, of Kansas City, Missouri. In the evening the following papers were presented:

"Some Remarks on Cardio-Renal Disease," Dr. J. J. Harrington.

"Exploratory Abdominal Surgery," Dr. R. C. Dugan.

J. J. HARRINGTON, Secretary.

FRANKLIN COUNTY SOCIETY.

The Franklin County Medical Society met in Ottawa on Wednesday evening, May 25, with the following doctors present: Pennington, Frump, Michener, Dugan, Kennedy, John B. Davis, Geo. Davis, Josephine Davis, J. Davis, Herr, Gilley, Fuller, Haggard, Blunk, Lawrence, Hardy and P. F. Bohan of Kansas City.

On motion it was voted, without a dissenting voice, that the members of this society will care for the practice of any member who goes into federal service during the present war; will endeavor to hold his business so that it may return to him on his return from the war, and further will pay one-third of all collections made from his patrons to his family or to himself on his return.

Dr. Bohan delivered an illustrated lecture on cardiac affections which was listened to with much interest. It was the general opinion, as developed in the discussion following the lecture, that Dr. Bohan is an authority on heart diseases.

C. W. HARDY, Secretary.

DECATUR-NORTON COUNTY SOCIETY.

The Decatur-Norton County Society met in Norton on Tuesday, June 12. The following program was furnished:

"The Importance of the Proper Early Treatment of Injuries," E. A. Nelson.

"Treatment of Typhoid Fever," H. O. Hardesty.

"The Medical Man in the Red Cross Movement," F. H. Smith.

"The Medical Man in War," F. D. Kennedy.

"The Treatment of Wounds (Gunshot, Punctures, Burns, Lacerations), Etc.," W. C. Lathrop.

"Medical Preparedness," C. W. Cole.

General discussion followed each paper.

MISCELLANEOUS

The new St. Joseph's Hospital at Kansas City has recently been completed. In the equipment of this institution all the surgical furniture, operating room equipment and fixtures were supplied by the Physician's Supply Company of Kansas City. The sterilizing and disinfecting apparatus alone amounted to nearly $10,000.

℞

Gelatine.

Gelatine saves albumen to a much greater extent than fat and carbohydrates, one hundred parts of gelatine taking the place of fifty parts of albumen. By greater proportions of gelatine, along with fat or carbohydrates, the loss of albumen in the body is much reduced, but it is never possible to safeguard the body from all loss of albumen; some nitrogen or albumen is always consumed. To the gelatine must always be added a small quantity of albumen in order to maintain the proper amount in the body. Moreover, by supplying gelatine somewhat less fat is consumed. According to Munk, the importance of gelatine consists in this, that it is dissolved very quickly and completely in the cells and by its solution saves the albumen from solution. This quality of saving the albumen is an exceedingly important one and at least twice as great as that of carbohydrates and fats. One hundred grammes of dried gelatine take the place of thirty-one grammes of albumen (150 grammes of meat). Moreover, the consumption of fat is reduced by gelatine. Five-sixths of the albumen used can be replaced by gelatine. Accordingly, gelatine represents a very valuable food product, which becomes of greatest importance where used for the economy of albumen.—Exchange.

℞

A Laboratory Booklet.

This booklet concerns the relation of the consulting laboratory to the practicing physician, and has just been issued by the Gradwohl Biological Laboratories of St. Louis.

Its great value to the physician is in having the information at hand in early diagnosis and control of treatment. It is especially helpful in the interpretation and technique of blood chemical tests. Read-

ers will be especially interested in obtaining this booklet, which will be sent free upon request.

℞

Advantages of Germicidal Soap.

On solution in water Germicidal Soap (McClintock) liberates a small quantity of free alkali. This prevents the coagulation of albumin and permits the mercuric iodide contained in the soap to thoroughly penetrate bacterial and tissue cells.

Germicidal Soap is a valuable disinfectant in surgery, in gynecology, in obstetrics, and in routine practice. It is not only detergent, but it is a penetrating antiseptic at the same time. It is an excellent lubricant for sounds and catheters. It is always ready for use. No weighing or measuring is necessary. There is no waste. Hands, instruments and field of operation are quickly disinfected with the one material.

Germicidal Soap does not attack nickeled or steel instruments, as does bichloride of mercury. It will not cause numbing of the hands as does carbolic acid.

Germicidal Soap is supplied in two strengths: Germicidal Soap, two per cent mercuric iodide—large cakes, one in carton; Germicidal Soap, Mild, one per cent mercuric iodide—large cakes, one in a carton—small cakes, five in a carton; Germicidal Soap, Soft, one per cent, in collapsible tubes; and Germicidal Soap Surgical, one per cent, in cylindrical cakes wrapped in perforated paper and enclosed in a nickel-plated case. It is well to specify "P. D. & Co." in ordering.

℞

Battle Creek, Michigan.

The idea of spending a vacation in a sanitarium may seem odd to one who does not understand how a great sanitarium is conducted today. Its healing devices do not stop with the procedure set down in medical text books, but include agreeable surroundings and healthful diversions of many kinds to keep patients from brooding over their troubles. Exercise, instead of being a tedious task, is taken in such attractive and varied forms that it becomes a delight. A sanitarium managed on such lines offers all the pleasures and attractions of an ordinary summer resort, and much besides. The business man who thinks he is merely run down and needs only rest, knows that in such an institution a corps of experienced physicians, backed by complete diagnostic apparatus, can tell him exactly wherein his mechanism is showing signs of wear and just what repair processes he needs. He knows that instead of the rich, haphazard menu of our expensive hotel, he will have the foods which he needs, skilfully prepared to tempt his appetite. Late hours and nerve-racking amusements will be replaced by rational pleasures. Best of all, a course in health training will enable him to return to his work with a knowledge that will increase his efficiency and lessen the likelihood of ill health. That this attitude is widespread is shown by the fact that the patronage of the Battle Creek Sanitarium in summer is much greater than in winter. People flock to Battle Creek in largely increasing numbers when the balmy days of June come.

℞

Afloat and Ashore.

Two new products which are attracting unusual attention, both in this country and abroad, are Chlorazene (Abbott), Dakin's New Antiseptic, and Parresine (Abbott), the improved hot wax dressing for burns. Both of these remedial agents have been passed by the Council of Pharmacy and Chemistry of the American Medical Association, to appear in their "New and Non-official Remedies," and have been ordered by the United States Navy to be placed on every ship.

The results which are reported by surgeons and hospitals in the use of Chlorazene and Parresine are so remarkable that it would surely pay every physician to become better acquainted with these products.

Literature will be sent on request to the Abbott Laboratories, Chicago, Illinois.

℞

The Duty of the Medical Profession.

In the National Guard, when its quota is full, there will be 433,800 men; in the new regular army there will be 293,000 men, and in the first draft of the new national army there will be 500,000 men. This makes an army of 1,226,800, whose mobilization is practically immediate. Such an army calls for 8,600 medical men as a minimum provision. This includes only the medical officers who will actually be with the army in the camps, and on active duty —not those who may go to Europe with hospital units or the 1,000 men asked for in France, or the large number of medical men that will be required for administrative work. This is possibly but the beginning. The 500,000 called for in the first

draft of the new national army may be followed by a second call for 500,000, possibly for a third 500,000, and even it may be for a fourth 500,000, making an army of 2,000,000 men, as has been prophesied will be necessary. In such an event the medical department of the army will call for a total of 20,000 medical officers, which is nearly 15,000 more than have yet been commissioned. There are in the United States approximately 145,000 physicians; consequently less than one in seven is needed even for full preparedness. Is it possible that there shall finally be difficulty in obtaining voluntarily the medical men needed? We cannot believe so. It is inconceivable that conscription of physicians will ever be necessary. But if we are to get the necessary 20,000 on the volunteer system there must be more eagerness for service shown on the part of our profession than has thus far been shown. The Journal this week carries a new blank to nearly 70,000 medical men. May every man who receives it and who is within the age limit—under 55—and physically and professionally qualified, recognize his debt to his country and his responsibility to his profession! — Journal American Medical Association, May 26, 1917.

WANTED—FOR SALE—ETC.

FOR SALE—Established practice in Northern Kansas—town of 1,500 population. Am going into the army medical service and will sell my equipment and introduce purchaser. My collections amounted to $5,200.00 during the past year. Competition, two active ethical men. Address K. C., care Journal.

NO CURE, NO PAY, on your unpaid accounts. We collect money for physicians in all parts of the world, at lowest commission rates consistent with good service. Send for contract and list blanks. Publishers Adjusting Association. Medical Department, Desk 10, Railway Exchange Building, Kansas City, Mo., U. S. A.

SAVE MONEY BY COLLECTING money justly due for professional services. Doctors' delinquent accounts our specialty. Fifteen years' experience. Commission basis. Endorsed by thousands of physicians and medical press. Publishers Adjusting Association. Medical Department, Desk 10, Railway Exchange Building, Kansas City, Mo., U. S. A.

FOR SALE—A $4,000 practice in a good town of 1,500 with four churches, two schools, library, electric lights, etc. A snap for good man who will buy fixtures amounting to about $300. Retiring from practice. Address "I," care Journal.

AN ANNOUNCEMENT

The National Pathological Laboratories

Announce the establishment of a complete laboratory at

ST. LOUIS

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The Diagnosis and Reporting of Diseases in Its Relation to Public Health.

JOHN J. SIPPY
Epidemiologist, State Board of Health.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

Health departments in the past have been largely dependent upon mortality reports for forming estimates of the prevalence of disease. Yet, when it is considered that the virulence of epidemics vary greatly in fatality, it may readily be seen that mortality reports may lead to many false conclusions. Death rates, even when derived from complete and accurate data, can furnish only incomplete and imperfect information with regard to the relative prevalence of disease in different communities, or as to the amount of time lost by sickness. Many forms of disease which make life more or less a burden, and cause irreparable damage to the health of individuals with resultant loss of efficiency, seldom or never appear in the registers as causes of death.

The reduction of illness and the lengthening of the span of life cannot be a matter of guess work or of individual conduct, but can be accomplished only by concerted public action. We cannot intelligently battle against preventable disease or deaths when we do not know when or where these occur, hence there has arisen a demand for a more exact and effective registration of illness and boards of health are demanding re-enforcement of their powers by law and by regulation to collect such records.

At a conference of the Association of State and Provincial Boards of Health of North America some four years ago there was adopted a model morbidity report regulation applicable to the conditions of practically every state and province. This was adopted by the Kansas State Board of Health at its December, 1913, meeting, and was placed in effect at the beginning of 1914. Under its terms there was reported in the state in 1914, 15,971 cases of notifiable diseases. In 1915 there was reported 23,442 cases, and in 1916, 29,901 cases. To those who draw the conclusion that there was an increase in preventable diseases from one year to another, it is well to direct attention to a comparison of mortality tables of those years and to point out that there was little or no increase, but rather a decrease, in death rates during that time. It being well known that the registration of deaths in Kansas has been most remarkably complete, it follows then that the increase of disease reports indicates but one fact, namely, a more thorough and complete morbidity registration, and in itself speaks for the success of the model morbidity report regulation. It also attests to the cooperation which the physicians of the state are giving to the State Board of Health, for which the latter desires to express its thanks and appreciation.

It is not yet claimed by the division of communicable disease that it is obtaining, by any means, a complete registration of morbidity, and it is only when this latter object is attained that the health department may fully know the results of its efforts of prevention, and the degree of efficiency of these efforts. It would seem that after three years of education, every physician would understand most thoroughly the terms of the regulation and the duties required of him by it. That this is not true is borne out by the fact that from 15 to 25 per cent of the deaths from notifiable diseases each month have not been reported previous to death to the local health officer, so that we may assume that on this basis we are still failing to receive at least 25 per cent of reports of diseases which occur. How this reflects on the profession as a whole is best illustrated by the following: A physician from

Kansas, visiting in Chicago, engaged a physician of that city in conversation, when the city M.D. remarked that as a whole Kansas physicians must be an uneducated and uninformed set of men. As a reason for his conclusion he pointed to the number of cases and deaths reported in the state from diphtheria, which showed a fatality rate of 48 per cent, and he seemed to be greatly surprised to learn that this apparently high rate was only due to a carelessness in the reporting of cases. It seemed inconceivable to him that a physician should be so derelict in his public duties as to fail to notify the health department of the existence of such a dangerous disease in the community.

Repeated inquiries into the reasons as to why physicians fail to make reports brings out some rather peculiar psychological processes and more or less routine replies. Expatiation on these, to the thinking physician, would seem unnecessary, but since any or all of you may hold one or more of these views, one may be justified in taking them up in more detail.

First, *the physician doesn't even know of the existence of a quarantine law or report regulation.* Rather unbelievable, but we do have them. It seems inconceivable that any medical man, who is presumed to be above the average man in educational qualifications, should enter upon the practice of his profession without securing full information as to his legal liabilities. Unfortunately, the medical curriculum of the past has too largely ignored questions of legal medicine, more especially those which concern matters of public health, but one of the first duties of a physician in entering practice in any state should be to acquaint himself most thoroughly with public health laws. In one state (Utah) before the physician may receive his license, he must certify in writing that he has read and is familiar with all the laws relating to the reporting of births, deaths and notifiable diseases and the enforcement of disease regulations. His failure to observe these laws subjects him to a charge of unprofessional conduct and revocation of his license to practice. Needless to say, that state is recognized as a leader in morbidity registration. To public health authorities who have witnessed epidemics result from the negligence surrounding one unreported case, the penalty is recognized as being none too severe. This division is anxious and ready and has tried to supply every physician in the state with a complete idgest of public health laws. If any physician does not know of them he has no one but himself to blame, and ignorance of the law has never yet precluded a penalty for any crime or misdemeanor.

Second, *the physician postpones reporting until he feels certain of his diagnosis.* The quarantine law states that "when a physician shall know *or have reason to believe*" that a case of communicable disease exists, he shall *immediately* report his *knowledge* or his *suspicion* to the local health officer. It is a matter of common knowledge that most of the communicable diseases are infectious even before the onset of acute symptoms, and since the physician is never called until the onset, he cannot take full precautions a minute too early to prevent contagion. In the experience of the average general practitioner forty per cent of all children's ailments are those of the acute infections. This proportion would seem to justify the suspicion that all such cases are communicable and infectious until they are proven otherwise. The sooner that physicians recognize and adopt this policy rather than the reverse, so much sooner will we be able to limit the transmission of disease.

The laboratory has done much to aid physicians in the confirmation of diagnosis. On the other hand, there is a tendency on the part of many physicians to rely wholly upon the laboratory and to ignore clinical symptoms which are by far more important. It happens again and again that physicians will refuse to make a diagnosis of typhoid fever, diphtheria or tuberculosis because the laboratory findings are negative, regardless of the fact that the patient has every clinical manifestation of the disease. It should be remembered that the laboratory technique or finding, through various causes which the physician must study for himself in each instance, is not infallible, and must be interpreted as only one link in a chain of evidence. The bacteriologist is only an aid to the eye and not the brain of the practitioner; he must still do his own thinking, and it is to be deplored if the laboratory encourages neglect of clinical observations.

Third, *the physician forgets to report.* In other words reporting the case is an insignificant detail compared with its treatment. No doubt this is another fault of past medical training. Our medical colleges have impressed upon him so thoroughly that his first duty is to seek the recovery of his patient, that he forgets the larger duty which he owes to the com-

munity. The day of individualism is passing; the physician who fails to recognize the etiologic relation of disease, and especially of communicable and occupational disease, to the social and industrial fabric of his community has a limited perspective and will ultimately wonder why failure lingers about his office door. Such men are like the country man who could not see the town for the houses. Disease is no longer a matter which concerns only the physician and patient, and the community and the state has every right to know its disease-breeding spots. The insignificant case is often the one which produces funerals, or the one which may prove the missing link in a chain of epidemiological evidence, and as such becomes a matter of tremendous importance. The prevention of the spread of disease, as in the case of fires, requires that every spark shall be subdued, and the community has a right to demand that it shall not be lulled to a sense of false security by the suppression of the smallest item of knowledge. The making out of the morbidity report should precede the writing of the prescription for the patient, and thoughtlessness or forgetfulness is above all others the inexcusable fault.

Fourth, *Some physicians are merely belligerent and resent reporting as a matter of compulsion.* They argue that the state has no right to arbitrarily demand this duty from physicians and especially without some compensation. These are to be reminded that the state reserves to itself the right to say who shall practice the healing art, and has granted licenses to do so under certain restrictions which the state prescribes. One of these restrictions applies to the reporting of disease, and in numberless cases in which the courts have ruled upon this point, the courts have taken this view and have upheld the law. The question of compensation is too trivial to remain an argument of large-minded and public-spirited men. In the first place such compensation fee must necessarily be small, and the man who refuses to report for lack of it will not report for it. It could be little better than a "porter's tip." If too large it would be economically an unsound public policy and would encourage false reporting.

By reason of his training the physician is the person best qualified in every community to recognize disease and necessarily the burden of reporting such must fall upon him. This fact is recognized by all quarantine laws, morbidity report regulations, and the courts, and it should be a matter of pride on the part of every member of the profession to yield to this appreciation of his knowledge.

Fifth, *the physician doesn't like the local health officer and finds it impossible to co-operate with him.* The State Board of Health recognizes this in a few instances as being perhaps the most valid of any excuse. Unfortunately it is a matter over which it has little control. The statutes have made no mention of exact qualifications of health officers and our democratic form of government presumes that each political unit shall exercise its own functions and select its own officials to perform those functions. It is only when they fail to properly perform them and thus endanger the rights of other political units that the state is justified in intervening. It is urged, however, that whatever friction may exist between individuals, this friction should not continue to exist when one of those individuals is officially engaged in the discharge of duty, and it is confidently hoped that every physician will sink his grievances in deference to the larger public policy, for the health officer who is not tactful and honest will be officially short-lived.

Our Legislature has so far failed to provide for the appointment of competent and trained health officers. Where we have them, it has been due to the discretion of local health boards. As a whole it has been the experience of the State Board of Health that most local officers are conscientious men, struggling under many difficulties. They are poorly compensated and for this reason are hardly justified in devoting the time and the labor which their duties demand of them. In spite of this they are doing their best, but the result of the system is what might be expected, viz., the physician is not only charged with the responsibility of reporting communicable disease, but is all too often obliged to assume charge of isolation and quarantine measures.

It is also believed that the duty of every physician includes the education of his clientele and his community in the means of avoiding disease and preserving health. The time is fast arriving when the medical profession shall be no longer thought of as ghoul-like followers in the wake of disease, but shall be recognized as energetic leaders of educational movements looking to greater conservation of health.

During the biennium of 1914-15, 21.8 per cent of all the deaths occurring in

Kansas were directly attributable to those diseases which are acutely infectious and directly transmissible in their nature. An additional 19 per cent were due to bronchopneumonia, organic heart lesion, and Bright's disease, a great proportion of which we now recognize as sequelæ of previous acute infections. So long as the race is human and human beings congregate, one would not be rash enough to say that all of this loss of life is absolutely preventable. But in the two years mentioned approximately 15,000 lives were sacrificed to diseases which are controllable, and one may safely say that with our present knowledge of the transmission of infection, at least one-half to two-thirds of this number might have been saved to useful citizenship by only a little care and a little knowledge. Kansas—however proud we are of her progressiveness and her literacy—offers up needlessly every year from 4,000 to 5,000 lives to the gods of utter ignorance, carelessness, and in far too many cases criminal negligence.

Your essayist does not wish to be misunderstood as laying the blame for this economic loss at the doors of the medical profession, for whatever its transgressions with which the short-sighted public is prone to charge it, the writer knows what the majority of the men of the profession have tried, and are daily trying to accomplish in public education in the prevention of disease. If, as has been charged, we began late in this process of enlightenment, we have to remember that our own knowledge of bacteriology and the transmission of disease is comparatively recent, that in many things we could not make positive assertions or apply unfailing laws, and that even the simplest truths require long periods of time to become common property. In a cosmopolitan and ever-changing population, the dissemination of accurate knowledge is even more difficult, so that in a manner we are only entering upon an area of preparedness for a campaign in the conservation of human life and efficiency.

The charge that the profession has been heretofore negligent bears a poorly concealed compliment, for it proves that, after all, the public is heaping its criticisms upon those to whom they look for leadership. If these criticisms fail in goading these leaders to greater effort, then indeed is medicine betraying a trust.

The period through which we are now passing is accentuating the fact that no part of the world is free from dependence upon another part, or one person from another person. It is further demonstrating the necessity of stringent economy not only in those commodities which sustain life, but, in the face of fearful drains, of human life itself. To save life and to make it efficient, whether on the field of battle or in the arts of peace, is being recognized as a patriotic duty. Nor can it be asserted that there is a lesser patriotism in those who cannot perform military service and must remain at home to conserve the efficiency of the generations to come. But shall it not be said that any member of the medical profession who through apathy, negligence or deliberate intent, fails to properly isolate and care for those cases of disease which endanger the lives and health of others, is delinquent to his trust, a dishonor to the profession and a menace to his community? Let us hope no such traitorous charge may be hurled at any one of us, and that no man will fail to do what the needs of his people, his state and his country demand of him. Again the State Board of Health thanks you for your past co-operation and solicits its continuance in the future.

———R———

Some Indications for the Use of Forceps.

W. A. GARTNER, Troy, Kansas.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

Some have attempted to lay down exact rules as to the time which should elapse before the application of forceps. It is not a question of time, but of conditions.

We hear opposition to the use of forceps, on the grounds that the introduction of the blades increases the chances of infection. It would be as wrong to say a necessary laparotomy should not be performed, for the same reason.

Of course a forceps delivery is a surgical procedure, and if the field, the forceps and the gloved hands of the obstetrician are sterile, there should be no reason for infection. Even in a remote farm house, without assistance, it is easy to sponge the genitalia and douche the vagina with a bichloride solution, and to boil the gloves and forceps. Usually this can be done beforehand.

In regard to anesthesia, it is rarely needed in multipara, in the low operation. Yet, when an anesthetic is needed, there is no getting around the fact that it should be administered by an experienced hand. Sometimes we can call in a colleague, or have a good nurse with us. Yet many

times, after the anesthetic is started, we must turn it over to a novice. Fortunately she is easily impressed with the dangers of anesthesia, and the position of the operator is such that he can watch both assistant and patient.

Another objection we hear to forceps is the possibility of grasping the uterus within the blade, but if the blade is properly passed along the inside of the guiding hand and the hand is between the uterus and the child, there is no reason for the blade getting the wall of the uterus in its grasp.

However, it is not the purpose of this paper to give the technique, but some of the indications for the use of forceps, and to show that when indicated they should be used unhesitatingly.

Edgar answers the question, "When are forceps indicated?" this way: "Whenever labor is to be quickly terminated, whenever the life of the mother or child is in peril, provided that contra-indications are absent." His answer, I think, completely covers the ground. It is of course much easier to determine the mother's condition than that of the fetus. Still, obstruction and delay that may be dangerous to the mother probably means compression on the head, chest or cord of the fetus.

In giving some of the indications for the use of forceps my object is to call attention to the usual cases we meet in obstetrical practice. Uterine inertia is the indication for forceps that we meet most frequently. And I want to say that I consider the use of forceps in this condition to be far better than the use of pituitrin. First, because one is sure to make delivery with forceps. Pituitrin may fail. Second, with the forceps one does not bring the head across the perineal floor as fast as pituitrin will if uterine contractions are greatly stimulated by it. Third, one will not necessarily get an hour-glass contraction and retained placenta with forceps. One is very apt to have both with pituitrin.

I still carry ampules of pituitrin in my obstetric bag, but if I use it, it is after delivering the placenta, and with the intention of checking hemorrhage by increasing uterine contractions, as I used to use ergot.

A case history here will illustrate: Patient age 24, multipara. Normal pelvis, old perineal tear through sphincter ani. On examination at 12 midnight, amniotic sac was bulging. Position was L. O. A. Fair uterine contractions every four to five minutes. At 2 A.M. head had made a little progress and pains were not as strong. At 3 A.M. patient would sleep occasionally and awake with a pain. Ruptured sac. Head made no progress and I gave a hypodermic of pituitrin. Pains did not increase in number or strength. At 4:30 A.M. I gave pituitrin again with the same result. At 6 A.M. I caller another physician to give the anesthetic and did a forceps delivery. Child and mother made an uneventful recovery.

In this case I should have done a forceps delivery sooner. This was a case of simple inertia, without obstruction, and one that did not respond to pituitrin. Then we have rigidity and stenosis of the birth tract. Of course contracted pelvis comes under this head too, but the more frequent condition is rigidity and usually in primipara; the cervix must be fully dilated. If it is not fully dilated, forceps delivery will result in extensive injury. If it is necessary to deliver at once, dilatation may be accomplished with the fingers. Then the membranes must be ruptured, and it is sometimes easy to mistake a caput succedaneum for membranes. The head must not be movable in the pelvis. If it is movable, one must not apply forceps.

If the uterine contractions remain good the cervix has dilated, and the membranes are ruptured, and yet there is no progress, because of a rigid perineum one waits in hopes that it will relax and stretch, and because he wishes to avoid a tear. Yet under just such conditions do we sometimes wait in vain, until symptoms of maternal exhaustion or fetal asphyxia compel us to apply forceps. Here the application of forceps should not be dodged. What would otherwise be a long and painful labor can be quickly and easily terminated, and if necessary the perineum repaired at once, while waiting for the placenta.

I give two case histories here to illustrate this condition:

Patient, age 18, primipara. Pelvis normal. Good pains at 1 A.M. Bimanual examination at 4 A.M. Occiput presenting in left anterior quadrant and cervix fully dilated. Perineum rigid. At 6 A.M. pains strong and sac ruptured. At 7:30 A.M. no progress and patient growing tired. Forceps applied and very moderate traction used. A fat child was delivered and perineum repaired. Uneventful recovery. Because of the rigidity of the perineal muscle in this case I would expect a tear, fol-

loginw subsequent deliveries, also in the following case.

Patient, age 32. Multipara. Pelvis normal. One child ten years old. Secondary perineorrophy and round ligament suspension. At 6:30 P.M. pains moderate. Examination at 11:30 P.M. showed cervix dilated, membranes bulging, and head well engaged, occiput in left posterior quadrant. At 1:30 ruptured sac, pains strong and tendency toward extension. Effort was made to correct this. At 2:30 no progress of head, perineum resisting. Having another physician administer anesthetic, applied forceps and delivered, with slight perineal tear. Recovery good.

In faulty presentation the forceps are sometimes indispensable. For instance in breach presentations, an after-coming head has little time to mould, or extension may take place; that cannot be corrected with a finger in the mouth. If such is the case, forceps should be used quickly.

I give a case history here. Knowing this woman to be the mother of eight children, I had expected a very ordinary case of obstetrics.

Patient, age 33, multipara, pelvis normal. On being called found her in labor, with rigid uterine wall and breech presenting. The fetal pelvis delivered itself in a left anterior sacral, and after bringing down the extended arms, all manual efforts at extraction failed to deliver the after-coming head. Although I could get a finger in the mouth, supra-pubic pressure was of no avail, the uterine wall still being rigid in contraction. As there was little time left I applied forceps and had to use but little traction.

Of course there is a very small proportion of cases of after-coming head in which forceps are indicated. Usually manual extraction is successful; but if it has failed, the use of forceps may save the life of the child, if used quickly.

The following case history would not come under the head of either faulty attitude, presentation or position of the fetus, yet it was a fetal dystocia.

Patient, age 24, labors 2, pelvis normal. At 9 P.M. occiput presenting in left anterior quadrant. Uterine contractions good. At 11 P.M. occiput had made no progress, yet pains had increased. At 1 A.M. contractions continued good yet head had not advanced and was not moulding. Ruptured amniotic sac. At 2:30 applied forceps. On delivering head, found the anterior fontanel completely ossiffied. Had the head moulded it would have been a normal labor.

SUMMARY.

In conclusion I will say forceps are dangerous only when used blindly, where a diagnosia has not been made. A definite diagnosis should be made in all cases.

Forceps should be used to correct position and stimulate uterine contractions, and not to force a head into diameters where Nature never intended it should go.

With the exception of cases of contracted pelvis and hydrocephalus, great traction is rarely necessary.

———R———

The Diagnosis of Syphilis.

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St. Margaret's Hospital.

Read before the Northeast Kansas Medical Society, March 1, 1917.

The aid which the laboratory has given the clinician in the diagnosis of syphilis can hardly be appreciated. Unfortunately this is not universally recognized. It is now well known that the soft chancre often harbors the parasite of syphilis. While to an experienced observer an hunterian chancre does not need further confirmation, we must remember that an herpetic lesion or papule may be the only local initial reaction to the treponema. It seems unnecessary therefore to insist that the secretion of all venereal sores be examined. The dark field illumination is very simple of application and the spirochete of syphilis is readily differentiated from other types. In the event of failure on repeated microscopic examination with the dark field illumination, a favorable prognosis should not be given until repeatedly negative Wassermanns have been obtained over a period of several months.

With nothing like mathematical exactness can the time of the appearance of the Wassermann reaction be estimated. It may not be possible to obtain it until the appearance of the secondary eruption, however, in a large majority of cases it can be obtained from the fourth to the sixth week; in one-third of the cases it may be obtained in the first week; in approximately ten per cent of the cases it is not obtained until the appearance of the secondary eruption. In secondary syphilis the Wassermann reaction when properly made is positive in one hundred per cent of cases.

The diagnostic importance of an examination of the cerebro-spinal fluid grows more apparent each day. The Wassermann

reaction, Lange colloidal gold sol, test, the cell count and the estimation of globulin give unlimited information. They enable us not only to determine the activity of a syphilitic process in the brain or spinal cord, or for that matter, any other place in the body, but they also serve to differentiate the different pathological types, and separate the specific affections of the central nervous system from those that are not. In lieu of the most recent investigations, an examination of the spinal fluid is incomplete without the gold sol. test. This test is based upon observations made by Zigmondy and applied as a clinical test on the spinal fluid by Lange in 1912. It depends upon the precipitation of colloidal gold by specific proteids in definite dilutions.

From an examination of over fifteen hundred spinal fluids made at St. Margaret's Hospital, Kansas City, during the past two years, we have found this test to be absolutely specific, and checking with the Wasserman reaction when this test is properly done.

The gold test, which is quite easily and quickly done, consists in a series of color changes, which occur constantly and characteristically. It is made with ten dilutions of spinal fluid in geometric progression from one to ten, to one thousand five hundred and twenty, the color change depending on the amount of colloidal gold precipitated; the color varying from the unaffected salmon red gold solution through red-blue, lilac, blue-gray, gray and colorless. The changes are arbitrarily expressed by numerals ranging from one to five. If in the ten tubes, representing the ten different dilutions, the solution be unaffected, the reaction would be expressed by ten zeros.

In paresis a most characteristic change is obtained, namely a complete precipitation in the first two to five tubes. This change is always accompanied by a marked increase in globulin, as indicated by the Nonne test, and checked by a strong Wassermann reaction. This reaction accurs in amount of spinal fluid from two-tenths to one-half c.c. The reaction peculiar to paresis is of great prognostic value. We have in our records several cases showing this reaction who, upon entrance to the hospital, showed no symptoms of involvement of the central nervous system, later showing well marked symptoms of the disease. The following case will serve as an example:

Mrs. B., housewife, married, 28 years old, one child living and well, two still births, no miscarriages.

Past History—Usual diseases of childhood. Five years ago had eight to ten large ulcers on back, together with headache and weakness. Ulcers healed during a period of treatment at Hot Springs. Two years ago glands in neck became swollen and tender, they are still present. Diplopia, three years ago. Husband sees double at present time and gives positive history of syphilis.

Present Complaint — An enlargement just above elbow of left arm. This began eight months ago and is painful, gradually increasing in size.

Physical Findings—Right pupil larger than left, both reacting to light and accommodation. Tumor mass left arm.

Serological Findings—Blood Wassermann four plus with one-tenth c.c. blood serum. Spinal fluid Wassermann four plus with one-half c.c. Gold sol, test, $\frac{1}{5}\ \frac{2}{5}\ \frac{3}{5}\ \frac{4}{5}\ \frac{5}{5}\ \frac{6}{5}\ \frac{7}{4}\ \frac{8}{3}\ \frac{9}{0}\ \frac{10}{0}$. Nonne three plus, cells 90.

Diagnosis—Gumma of left elbow. Spinal fluid findings indicative of paresis. After two months of observation and even while under treatment, patient became very irritable and developed well marked delusions of persecutions and is at the present time a typical paretic.

In tabes dorsalis there is a partial precipitation of the gold especially in the third and fourth tubes. This change, however, is not specific, and may indicate any syphilitic involvement of the central nervous system. We have in our records several cases of secondary lues giving a positive reaction when this test was applied to the spinal fluid, this being in line with the opinion of those authorities who have maintained that there is a very early involvement of the central nervous system.

Concerning the cell count of the spinal fluid we do not attach any great amount of diagnostic importance to it. Rather considering it as an index of the activity of the syphilitic process. There are those cases of tabes which have been of long standing in which there are no cells present in the spinal fluid. It is in early cerebro-spinal lues and early cases of paresis where we expect to find high cell counts.

The amount of globulin present always runs parallel with the intensity of the gold sol. test; if there is any precipitation of the gold solution there must be some globulin present. The method for the estimation of the globulin which we have used is that described by Nonne, in which equal

parts of spinal fluid and a saturated solution of ammonium sulphate are mixed, or in which the spinal fluid is layered over the ammonium sulphate. We wish here to emphasize the importance of a proper solution of ammonium sulphate, following strictly the directions of Nonne, in that 80 gms. of the salt be dissolved in 100 c.c. of distilled water by the aid of heat. We have obtained some false negative Nonne tests by the use of improperly prepared ammonium sulphate solutions.

Considering the diagnosis of lues from entirely a clinical standpoint, the striking feature is the multiform clinical pictures encountered. In an analysis of our last hundred cases in which we have made complete blood and spinal fluid examinations, the most common symptom has been headache, present in one-third of the cases. The time honored opinion as regards a characteristic type has not held good in this series, its most constant features being chronicity and resistance to non-specific treatment. In these cases the eyes and nose were especially eliminated as causative factors. Lightning pains were present in sixteen cases. These were the typical pains of tabes occurring in definite paroxysms and especially difficult of relief.

Hemiplegia was the complaint in twelve cases, the majority occurring in middle life individuals in whom the vessels were not thickened and the blood pressure low. The paralysis having appeared suddenly and in most, unaccompanied by unconsciousness. Impaired memory was present in eleven cases, accompanied by slow cerebration in six cases. Irritability and excitability in ten cases. Insomnia was complained of in ten cases; delusions of grandeur in eight cases, and delusions of persecution in five cases. Epileptiform seizures were present in six cases, these presented the typical paretic curve with the gold test. There were hearing defects in five cases, these having a very weak Wassermann reaction, and a gold in which there was a slight precipitation in the third and fourth tubes. Gastric crises were the outstanding feature in eight cases, four of which were sent to the hospital as surgical cases, with either the diagnosis of cholelithiasis or gastric ulcer. There was bladder and rectal incontinence in nine cases.

The most common physical finding has been inequality of variation in the size of the pupils, together with a lack of reaction. These findings were present in forty-nine cases, twenty-five being unequal pupils that reacted well to light or accommodation, nine were unequal and did not react to light, four were pin point pupils which were fixed. There were but ten of the forty-nine cases showing pupillary abnormalities which were of the classical Argyll-Robertson type. This point is of interest in lieu of the fact that the Argyll-Robertson pupil has been considered the most common pupillary finding of tertiary syphilis.

Enlarged epitrochlear glands were palpated in thirty-six of these cases, while enlarged post cervicals were found only eleven times; palpable epitrochlear glands alone without other findings are enough to very strongly suspect lues and make serological tests justifiable.

Practically all of our cases have had a normal or low blood pressure, with no palpable thickening of the brachial arteries. This is not in line with some recent literature, which would lead us to believe that syphilis is the cause of chronic nephritis.

In the clinical diagnosis of syphilis we must remember that lues is the great imitator, any one symptom or finding which would make us at all suspicious of the disease should arouse us to look for others which would not be so plain, as we have found a number of cases with an unequal pupil or a palpable epitrochlear gland whose spinal fluid would give the typical findings of a tabes dorsalis or a paresis, when there were no symptoms of these diseases. This, also, is in line with what the autopsy table has taught us, that marked changes have been demonstrated in the central nervous system when there was no evidence anti-mortem.

———R———

Scarlet Fever

E. C. WICKERSHAM, M.D., Independence.

Read before the Montgomery County Society, April 20, 1917.

Scarlet fever is an acute infectious disease, characterized by a diffuse exanthema and an angina of variable intensity.

Sydenham, in 1675, gave a full account of it under the name of "Febris scarlatina," prior to which time all descriptions of the disease were vague and unintelligible.

Of its etiology none of the acute infections differ so greatly in the intensity of the outbreaks. In some years it is very mild, in other years in widespread epidemics it is frightfully malignant. It is a widespread affection, occurring in nearly

all parts of the globe, attacking all races and classes.

Sporadic cases occur from time to time. Epidemics are most pronounced in autumn and winter. There is an extraordinary variability in the severity of the outbreaks, which as a whole appear to be lessening in severity.

The Seibert studies, in New York, show that the disease increases steadily from week to week until the middle of May; the frequency diminishing gradually until the end of June and gradually increasing again through October, November and December. He associates the remarkable drop in July, August and September with the closure of the schools and the cessation of the congregation of infectious material in small areas—viz., school houses and play grounds, for so many hours each day.

Age is the important predisposing factor. Ninety per cent of the cases are under the tenth year. Sucklings are rarely attacked. The general liability to the disease in childhood is less widespread than in measles. Many escape entirely, others until adult life. Family susceptibility is not infrequently demonstrated by the destruction, in rapid succession, of four or five members. To the contrary, individual resistance is common and many persons constantly exposed escape its horrors. An attack as a rule affords subsequent immunity.

Infectivity.—It is not known positively where in the body the poison is found, how it is given off or in what form it is taken by another. It is probably given off with the secretions of the nose, throat and respiratory tract. The mild angina of the ambulatory cases may convey the disease and in this way it may be spread in the schools and the so-called "return cases" may find in this way their explanation. Much more attention has been paid to this aspect of scarlatinal infection of late years and it has been thought that the skin is only infective by contamination with the secretions. The general idea prevails, however, that the poison is given off from the skin, particularly at the time of desquamation. The germ is tenacious and long-lived, clinging to the clothing for long and uncertain periods—as instanced in homes where poor or improper disinfection occurred after a termination of the disease. In some instances I have known fresh outbreaks to occur a year afterward, landing on another family altogether. The disease is said to have been conveyed by milk. Of ninety-nine epidemics studied by Kober, the disease prevailed in sixty-eight at the dairy or milk farm. There appear to be two groups of these cases—first, genuine scarlet fever, in which infection is conveyed by the milk having come in contact with infected persons, and secondly, outbreaks of an infection resembling scarlet fever, due to disease of the udder of the cows.

By surgical scarlatina, first brought to the notice of the physician by Sir James Padget in 1864, is understood an erythematous eruption following an operation or occurring during a septic infection. It differs from medical scarlatina in the large number of adults attacked, the shorter incubation, the mildness of the throat symptoms, the starting of the eruption at the wound and the precocious desquamation. Able authorities conclude that the eruption in these cases is most frequently due to septic infection and is not truly scarlatinal and in those cases in which the disease was unquestionably scarlatina there is no convincing proof that the relation between the wound and scarlet fever was anything more than one of coincidence.

Of the morbid anatomy, except in the hemorrhagic form, the skin shows no rash after death. There are no specific lesions. Those which occur in the internal organs are due partly to the fever and partly to infection with pus organisms. Simple inflammation and follicular-tonsilitis are the ordinary anatomical changes in the throat. In severe cases there is intense lymphadenitis and much edema of the tissues of the neck, which may go on to suppuration or even gangrene. Streptococci are found abundantly in the glands and in the foci of suppuration. The lymph glands and the lymphoid tissue may show hyperplasia and the spleen, liver and other organs may be the seat of widespread focal necrosis.

Symptoms. — Incubation from one to seven days, oftenest two to four.

Invasion.—Onset sudden, prodromal indisposition, an actual chill rare, vomiting pathognomonic early symptom, convulsions are common, fever intense, may rise to 104 the first day. Skin dry, tongue furred, dryness of throat, cough and catarrhal symptoms uncommon if no other complication, face shows a flush characteristic of the objective symptoms of an acute fever.

Eruption usually on second day, sometimes within the first twenty-four hours. Rash first appears in the form of scattered red points, first on chest and neck,

spreading so rapidly that by the evening of the second day the entire skin may be covered and, persisting for two or three days, it gradually fades. The vivid scarlet hue differs from any other eruptive fever or disease. There may be fine punctiform hemorrhages, which do not disappear on pressure. In some cases the rashes do not become uniform, but remain in patches. Small papular elevations are sometimes noticeable; though not so common as in measles. The rash grows darker day by day. Smooth at the beginning, the rash gradually becomes rougher. A punctate eruption in the armpits, roof of the mouth and groins, is supposedly a positive proof of scarlet fever. Petechiæ in the malignant type becomes widespread and large. Eruption does not always appear on the face. The itching is variable, not as a rule intense at the height of the eruption. The rash disappears about the seventh or eighth day. The tongue is at first red at the tip and edges, furred in the center and through the white fur are often seen the red papillæ, which give the so-called strawberry or raspberry appearance. In a few days the fur desquamates and leaves the tongue's surface red and rough. Ofttimes the breath has a heavy, sweet odor. We usually have slight morning remissions of fever. In very severe cases preceding death we may have a hyperpyrexia, the fever running as high as 108-109. The average case, well handled, will run a temperature of 102 in the morning with an evening exascerbation to 103, early in the disease. In the ordinary cases the pulse will run 120 to 150. In the severe cases the pulse may reach 190 to 200. A leucocytosis in the severe cases may reach 30,000 to 50,000 per cubic centimeter. The spleen may be palpable. The liver is not often enlarged. Nervous symptoms are pronounced throughout in typical cases. Gastro-intestinal disturbances may or may not be particularly marked after the initial vomiting. The urine is of the usual febrile character—scant and highly colored, slight albuminuria being frequent in the desquamative stage. As the rash comes out the mental wanderings disappear. Careful examination of the urine should be made every day, although a trace of albumen is no cause for especial alarm, not even if it is associated with a few tube casts.

I think it of very great importance to differentiate the typical form from the atypical form of scarlet fever, for therein lies the danger of spreading the disease. In the atypical, or mild abortive forms, the rash may be scarcely perceptible. In school epidemics a third of the cases may be of the mild type. The child may sicken and possess all the early characteristics of the malignant, though the rash may not appear, or if it does, soon fades away. Later, however, desquamation may occur and in these mild cases a nephritis may ensue. I have no data at hand, but I wish to call attention to a few cases in order to emphasize the necessity of great care to prevent the transmission of this dreaded disease to those less immune, from the milder cases. I have in mind a family in which all the children (three in number) had scarlet fever, the winter just past, to illustrate the virulency of the germ.

The first case—a boy of six years had the disease so mild that it was not recognized as scarlet fever, the family physician being compelled to leave the city after the first call. This boy never went to bed and was playing about the home, enjoying himself to a hilarious degree, when the second case, a boy of three years, was stricken, passing through four weeks, every moment of which was attended with the gravest concern. The third case, a girl of eight years, was attacked two days after quarantine was lifted from the preceding case and her illness was equally long and perilous.

Pus in sinuses as a sequella is a dangerous method of transmitting the disease. I recall the case of a school girl in Cherryvale, several years since, who six months after the quarantine had been raised and after the milder operation—that of drilling into the mastoidal sinus—conveyed the disease to three of her school chums who sat adjacent to her. A smear of the discharge from the sinus showed abundantly of the streptococci and stapylococci and even though the germ of scarlet fever has not been positively isolated, this case gives sufficient cause for care in preventing the spread in those cases giving off a discharge from a sinusitis due to scarlet fever. Likewise, equal care should prevail in the management of a suppurative otitis media following the disease.

The complications are numerous, also are the sequellæ and are of grave import, some of them in the extreme. Nephritis, hemorrhagic or other forms. Edema, arthritis, sometimes suppurative, a fatal type of arthritis. Rheumatism—so called —analogous to that of gonorrheal or other infections, occur in the second or third week. The heart may be involved. Cho-

rea, subcutaneous fibroid nodules. Purpura and pleurisy may be complications. Acute bronchitis and broncho-pneumonia. Empyema is an insidious and serious complication. There are ear complications. Adenitis, swelling of the submaxillary, lymph glands and others. Drug rashes should be detected early, meanwhile all children susceptible should be segregated until a positive diagnosis has been made. Drug rashes are seldom more than a transient hyperemia of the skin and a history of a prior use of the drug at a time when no epidemic exists may aid in accounting for many rashes when scarlet fever visits but sporadically. Some other diseases are said to co-exist with scarlet fever. In my experience quinine is a frequent feature in delaying a diagnosis, though if the case be genuine you need not wait long for the early pointed throat eruption to establish a positive diagnosis. Measles, rotheln and puerperal septicemia, at times, are said to confuse, though the general symptoms, if closely observed for a short time, will prove a safe guide. Scarlatina and diphtheria may co-exist, but in a case showing widespread erythema with a proof of Loefler's bacilli, it would be difficult to determine whether the two diseases coexisted or whether it was a scarlatiniform rash, such as sometimes occurs in uncomplicated diphtheria, for desquamation occurs in either case.

What concerns us a good deal is, how long is a child infective? Usually after desquamation is complete (four or five weeks) the danger is thought to be over, but the occurrence of the so-called "return cases" show that patients remain infective at this stage.

As to prognosis—the death rate has been falling off of late years. Epidemics differ to a wonderful degree in severity and the mortality is variable. The death rate among the better kept classes is much lower than in the hospitals. As a whole, a large majority of the cases recover.

Treatment—Preventive. Isolation, complete separation of those having the disease from those exposed or in the family. Disinfection of school houses and other public places of supposed exposure. Unfortunately America has few cities with segregation hospitals, such as obtain in England, Germany, and other European countries. A competent nurse is one of the most essential considerations in the direct treatment of scarlet fever. The temperature of the room should at all times remain the same and the ventilation thorough. Some authors recommend a light flannel gown for the patient. I would prefer a light, softer and less irritating garment, in that the flannel is irritating to the already itching skin. The bed clothing should not be too heavy.

The Diet.—Several authorities unqualifiedly advise milk, broths and fresh fruits. In my experience, early in the disease, when the fever is running high, broths serve best; milk never in the early stage, nor until the fever has left. Even after the fever has subsided very great caution should attend the diet, the physician feeling his way slowly, to ascertain the digestive powers of his patient, many changes ofttimes being necessary before accomplishing a food assimilable by the particular patient in hand. I regard milk, during the febrile stage, as injurious rather than helpful—likewise fruits. The milk invariably curds and fresh fruits invariably account for an undesirable fermentation, and in the use of either we will most suruely get a rise of temperature accompanying the gastro-intestinal disturbances. I regard the broths, with occasional feedings of a light tapioca gruel about the consistency of cream, not highly seasoned, as best, until the fever subsides, when you can then feed the milk in varying grades of dilution or modification until assimilation is adequate, when the whole milk may then be given. When the fever has left, strained buttermilk sometimes serves better than sweet milk, and this, too, may be diluted, taking into account the age of your patient. When desquamation begins, the child should be gently rubbed with olive oil, luke warm, once daily or once in two days. I do not think well of carbolized vaseline as an application to allay the itching, for because of its varying strength there is a possibility of obtaining organic effect of the carbolic acid, which I never have experienced in scarlet fever, though I have so observed when applied in smallpox.

Hydrotherapy.—Eminent authorities say "At any time, in most cases, during the attack, the skin may be bathed with warm water." Now, don't you do it, at least not until desquamation begins. Rather stick to your olive oil if you would avoid an increased nephritis and possibly a bronchial pneumonia. During the febrile stage the one method of hydrotherapeutic procedure adapted for several years has served me well and consists simply in the time-worn method of normal saline irrigations of the bowels to remove accumulated gas as well

as fecal substance and if the fever is running very high the enema should be given night and morning. If the fever is only moderate, running the usual course, the irrigation may be necessary but once daily and a favorable time is an hour or two before the expected evening exascerbation.

When Up.—Patient may get up ten days after fever has left, but for three weeks from this time great care should be exercised to avoid the patient taking cold. It is most important to remember that renal complications may ensue after convalescence has begun.

Medication.—But little medication is indicated in the ordinary case of scarlet fever. Thorough bowel and kidney elimination and the guarded use of antipyretics in the onset. In my experience quinine is an important adjuvant in combating toxic conditions. Of late years, when the heart has become weakened, I have used cactin advantageously in minute doses, obtaining, as I believe, less of an exaggerated motor tone, such as comes from strychnine, and less of an exaggerated diuresis such as comes from the too free use of digitalis, though in those cases where collapse seems imminent, when the fever terminates by crisis, strychnine is unquestionably indicated above all the rest. I have given diphtheria antitoxin three times, in very severe cases, with good results, on the assumption that a serum capable of weakening the Klebs-Loefler bacilli ought to prove effective in scarlet fever as a deterrent to the toxemia. The proofs may be lacking, from the viewpoint of the theorist, but the succeeding glow of moisture following its administration, the lowering of temperature and final recovery of the three patients is responsible for my faith that diphtheria antitoxin played an important role in these recoveries.

The throat symptoms, if mild, need little treatment, though if severe the usual treatment, as in diphtheria, locally, may be used advantageously. Cold applications to the neck, rather than hot. The mouth and fauces should be regularly cleansed with the usual mild antiseptics so employed.

The neck sometimes requires special attention to prevent glandular swelling. Some of the iodine preparations are good. Petrogen-Iodine 10 per cent, with an equal amount of olive oil to escape the blister you get from an altogether petroleum base, I find good to prevent and reduce these glandular swellings. I have noted no very great success from the anti-streptococcic or anti-staphylococcic serum administered in scarlet fever, though I would not hesitate to use it, all other remedials failing. I have been disappointed in their use in toxic conditions due to causes other than scarlet fever.

A smear from the mastoidal discharge, referred to above, contained a great number of the streptococci and staphylococci. Being merely called into the case, I had no opportunity to follow it up, though as I remember it, the radical operation later became necessary to insure complete recovery, which confirms me in the belief that radical measures should be resorted to in the beginning of a mastoidal pus case arising from scarlet fever.

In those cases and at those times when the child becomes nervous and insomnia exists to an alarming degree, passaflora has proven of value, in that little gastric disturbance occurs as is the rule with the bromides administered to children.

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Observations on Appendicitis as Viewed from the Angles of the Internist and the Surgeon.

F. A. CARMICHAEL, M.D.

Read before the Miami County Medical Society, 1916.

It is not intended in the scope of this paper to attempt any extended resume of the subject under discussion. No apologies are offered for presenting such a trite and well-worn subject for your consideration. You may think you know all that is salient about this subject—at least that you are not likely to hear anything new from the ordinary sources of a county medical society. Fully granting your premises in this respect, as it is not my intention to present anything new, I wish to impress upon you that it is not so much what we know as the use we make of the knowledge we possess.

In appendicitis, to apply this knowledge and to stand firmly by the convictions it carries requires moral courage at times amounting to heroism on the part of the internist and it is the internist and general practitioner, not the surgeon, to whom the following remarks are addressed. That we have not attained a degree of diagnostic skill and discriminating judgment commensurate with our responsibilities in dealing with this condition is attested by the all too frequent fatalities occurring in the private practice of nearly every physician. These fatalities are without justification in most instances for the reason that appendicitis in itself is not a fatal

disease. People do not die of appendicitis. They die of the complications resultant upon failure to recognize either the primary morbid condition or to fully comprehend the extreme seriousness of its complications or of failure of the attendant to fully impress the patient, his relatives or friends, with the extreme gravity of the case. Having for several years at one time essayed the very difficult task of doing surgery and general practice in the same community, I feel qualified to discuss the subject without the unbounded optimism so frequently exhibited by an internist or the equally unjustified pessimism always exhibited by the specialist in surgery. I can fully understand the optimism of the internist born of his frequent contact with appendix cases that have recovered under medical treatment, some perhaps where he has strongly urged operative intervention which was successfully opposed by the patient or his family with recovery and resulting distrust of the medical attendant's judgment or motives. It is undeniable also that the public is aware of the fact that many surgeons pay a premium on surgical cases sent them by the internist and the belief frequently exists that their ills are distorted or magnified in the interest of this pernicious commercialism. With the laity, appendicitis is appendicitis pure and simple. There is no discrimination of type or degree of malignancy. If one case in the community recovers from an attack of appendicular colic or simple catarrhal appendicitis, the medical attendant is expected to produce like happy results in all cases, regardless of type. Nearly everyone shrinks from the prospect of a surgical operation and, particularly among the rural population, ignorance and bias are frequently insurmountable obstacles to the rational treatment of these cases. Fatalities resulting from the complications of appendicitis are not as a rule attributable either to lack of diagnostic skill or ability on the part of the practitioner to fully recognize the possible or often probable unfavorable outcome, but in the main may be charged to the lack of moral courage to enforce his convictions on the patient or relatives. The merest tyro is capable in most instances of determining the diagnosis of appendicitis, but no man living can offer a prognosis as to the final outcome at the time diagnosis is made unless serious complications are already evidenced. The internist cannot justify procrastination in those cases where evidence of infection exists. The initiation of an appendiceal attack by a chill immediately takes it out of the class of simple catarrhal inflammatory processes and stamps it as a more or less virulent bacterial infection. Pain is the most deceptive index upon which an opinion of the severity of the process may be based. It is notable that more pain is usually experienced in simple appendicular colic than is encountered in the more fulminant and severe appendicular infections and that frequently the rupture of a gangrenous appendix with its concomitant shock is the first belated warning of a serious appendiceal involvement. The fact must never be lost sight of that a gangrenous appendix does not convey pain sensation and does not absorb or disseminate septic products. Hence, subjective sensations of improvement on the part of the patient, even to the point of comparative comfort, and even when accompanied by a fall of temperature to the normal, should not deceive the attendant, but should call for greater vigilance and a heightened concern for the patient's safety. In those cases where under rest and proper medical supervision there has been subsidence of pain in the course of twenty-four to thirty-six hours with residual soreness, any recurrence of actual pain referred to the appendix region within twenty-four to forty-eight hours is an indication for immediate surgical intervention, as fully 90 per cent of these cases prove to be operative cases and show a heavy preponderance of peritoneal complication. It is unjust to the surgeon to force upon him the responsibility of these cases where, due to our personal optimism or failure to enforce our opinion upon the patient or relatives, infection has spread beyond the appendix and involved the peritoneum. We have no legitimate excuse for permitting our optimism, too often exhibited without foundation on fact or precedent, to place the work and results of a surgeon in an improper light. The diagnostic skill and sound judgment of the internist is disparagingly regarded by the surgeon, because of the frequent repetitions of this error. It is unjust to the patient to permit him to take chances, the nature or gravity of which he cannot comprehend, and the internist is unjust to himself who permits his sympathy, his optimism or his personal interest to warp his better judgment in the conduct of these cases. The majority of appendiceal cases I have been called upon to operate or that have been referred to me for operation were not elective cases,

but were almost without exception poor surgical risks, sometimes moribund, often hopelessly septic, nearly always entailing a long, tedious and often stormy convalescent period with the full complement of drainage tubes, septic intestinal stasis, fistula, granulating incisions, stitch sloughing and residual peritoneal adhesions. Operating in a comparatively limited field where a fatality occurring after any operation, no matter how serious or hopeless the case, was regarded not as a surgical failure but as a surgical crime, I am keenly alive to, and in sympathy with, the surgeon's viewpoint, which is theoretically correct, but at the present time practically unattainable. The man doing surgery is compelled to accept these risks. They are forced upon him in most instances by the internist. Yet while the surgeon risks his reputation, the patient's life is needlessly jeopardized. Statistics prove that appendiceal operations undertaken while the infection is limited to the appendix itself show a lower mortality than operations for the removal of the tonsils.

The question may here be pertinently asked, would you operate on the so-called mild catarrhal cases? In reply it may be said that there are no such cases, at least so far as it is within the ability of the attendant to diagnose them as such. The only time a diagnosis of mild or catarrhal appendicitis is justifiable or may be made with safety is after the patient has entirely recovered from an attack and when residual soreness over the appendiceal area is so slight as to be negligible or has entirely disappeared. Even then the attendant expects and warns the patient that other attacks are likely to occur and that each successive attack not only carries with it the uncertainty of its final outcome but predisposes to other attacks and finally leads, in the chronic stage, to a train of obscure nervous, gastric and intestinal symptoms in many cases not symptomatically associated with the appendix which may only be definitely and permanently cured by the removal of the appendix. Without encroaching too seriously upon the time of the society, it is impossible to elaborate further on the subject at this meeting, but with your indulgence I shall present at the next meeting some facts and experiences relative to chronic appendicitis especially dealing with symptoms entirely referred to other organs.

Pulmonary Abscess.

W. D. Tewksbury, Washington, D. C. (Journal A. M. A., March 10, 1917), calls attention to what he considers a simple rational method of treating acute abscess of the lung by artificial pneumothorax, and reports two cases. A few cases of its use in old chronic lung abscess have been published, but he has found only one report in American medical literature of the use of compression of the lung in acute cases. He has only two cases to report, but his success in them was such as to make him think them important enough for publication. In modern medical literature rib resection with drainage is the method advised. In both his patients the symptoms of lung abscess rapidly subsided after the induction of artificial pneumothorax, though one is still under treatment. The mortality of acute lung abscess treated medically is, he says, approximately 60 per cent, and the percentage of cures is not more than 10 per cent. The rib resection and drainage give somewhat better results, but often leave a draining sinus which may persist for many months. Artificial pneumothorax is a rational method of treatment for all cases which can drain through the bronchus, and gives promise of appreciable lowering of mortality and an increased percentage of cure.

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Seminal Vesicle Infections.

R. H. Herbst, Chicago (Journal A.M.A., March 10, 1917), reports on cases of acute urethritis, the chronic course of which seemed to be due to infection of the seminal vesicles. His attention was first drawn to this idea by a patient under observation complaining of a persistent urethral discharge for six months, complicated by frequent and painful bloodstained emissions which had not occurred prior to the urethral infection. He found the vesicles greatly enlarged and tender, and to relieve the condition he made a bilateral vasotomy and injected both vesicles with collargol. To his surprise, the profuse urethral discharge practically disappeared within forty-eight hours, and since that time he has made it a point to carefully examine the vesicles in all obstinate urethral discharges, and has come to the conclusion that they do not receive the attention they need. Five cases are reported in his paper illustrating the conditions and the results of treatment.

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W. E. McVEY, M.D. - - - - - Editor

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Who Should Go?

It is easier to decide whether the other fellow ought to offer his services to the government than it is to decide what one should do himself. There seems to be so many things to be considered, but really there are only a few.

The first thing to be determined is one's loyalty. We are extremely loyal when it is profitable, most of us are loyal when it is an even break, but it is the loyalty which will withstand a sacrifice that really counts in times like these.

If one has the right kind of loyalty the business side of the question is eliminated. There are men in active service in the medical reserve corps now who were making nearly as much every month before they entered as their salary for a year amounts to now. A man, however, who has done that much business ought to be well enough fixed to afford a few years' vacation—and he no doubt needs it. There are a good many who would make a few thousands more in practice than in the army service, and some perhaps who would make less, but these points are only to be considered in determining the degree of one's loyalty.

Even the lowest commissioned officer in the medical department will have an income sufficient to keep himself and family in comfortable circumstances, which is more than can be said of the vast majority of those who have volunteered and who will be drafted to do the actual fighting.

One who is really loyal to his country has but one question to decide and that is as to where he can be of the greatest service. In many instances this is a serious question. Just as men will be needed at home to supply the food, the clothing, the equipment and the ammunition for those in the fighting lines, so doctors will be needed at home to look after the health of these men and the health of the families of those who have gone to the war. This service is just as important to the ultimate successful issue of the war as the service with the army in the field, but the fact must be considered that there is a large per cent of the registered practitioners disqualified for active service with the army, but fully capable of doing the work at home. A doctor who is the only dependence in a community can best serve his country by staying at home, at least until someone can be secured to take his place. When there are two or more doctors in a community one's greatest duty lies in the army service. Which one? The one who is best qualified. In most of the larger towns and cities, where there are a good many physicians, the question of who should go solves itself, for at least fifty per cent of the number are disqualified for army service but are able to take care of all the sick that will require attention. In most such places half of the physicians could more easily be spared than can one from many of the communities from which they are now going.

Then there are the men connected with hospitals. Every member of a hospital staff must decide whether he can best serve his country by remaining with the hospital or joining the medical service of the army. It is very important for the welfare of the country that hospitals be not disabled by a depletion of their medical service. It is important that hospitals should maintain their standards of efficiency for the benefit of the people at

home, and also for the purpose of caring for sick and wounded soldiers who will be returned.

So many of the recent graduates in medicine have joined the medical corps of the army and navy that some of the hospitals are finding some difficulty in securing internes. It is important, therefore, that before any member of a hospital staff shall apply for a commission arrangements shall be made for supplying his place.

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The Physician on the Exemption Board.

The duties of the medical members of the exemption boards are likely to thoroughly test their medical ability as well as their integrity and loyalty. To resist the demands and threats of irate fathers, the tears and pleadings of frantic mothers, and the pathetic grief of young wives, will require patience and tact, but to tell the young man who has been one's patient for months or years that he is physically qualified for service will require some logical ingenuity.

To ignore the diagnosis and certificate of disability given by an able confrere will be no less pleasing to the member of the board than to the said confrere and his friends.

Every ailment that the conscript has ever had, and many he has never had, will be urged as causes for exemption. All the malingerer's schemes that have ever been devised will be brought into service and the examiner will need to have all his wits to discover them.

The most disagreeable feature of the examiner's duty will be the necessity for refusing to yield his judgment in behalf of those who have been his friends and patrons for years. People who are usually fair and honest in their dealings will, for the sake of their children, demand of their doctors things which at other times they would condemn as dishonest and unmanly. The examiner cannot avoid making bitter and lasting enemies of many of his former friends if he is true to his trust. There is but one attitude which the examiner may safely assume. He must assume that every conscript he examines is loyal to his country, anxious to be permitted to play his part in this great war and will be disappointed if he is rejected. The examiner must act and feel the part, for upon his attitude will depend to a large extent the manner of approach of those who hope to use him for their own ends. Such an attitude will embarrass the efforts of some to exaggerate their claims for exemption and will to some extent excuse the examiner when he fails to recognize the gravity of the ailments of those who seek exemption.

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Unrest.

The great unrest now manifest among the people of the United States, and particularly among the members of the medical profession, would soon demoralize the latter if continued for many months more. Those who have made applications for commissions in the reserve corps, and after weeks of uncertainty have not yet received them, or having received their commissions are waiting for orders, are not in the best mental condition for the practice of medicine. They must continue, however, to give their patients the best service possible until they know definitely that they will be called and when they will be called. Many of these men have already arranged with others to care for some of their patrons, and many of the patrons of those who are known to have applied for commissions have already found other doctors.

This is a condition for which there is no one to blame and for which there is no help. It is only a riffle compared to the great commotion created in many other lines of work. When the machinery put in motion for raising our great army has become perfectly adjusted things will no doubt move more smoothly, but it is probable that a complete readjustment will be required in the practice of medicine as in many other professions and businesses.

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During the week ending June 23 something over 1,150 physicians were recommended for commissions.

The Lecture Bureau.

There was such a demand for lectures from the bureau which was started by the Journal last year that it has been decided to continue it upon a more substantial basis and under the auspices of the Council. We wish to suggest that the secretaries of societies desiring to avail themselves of the bureau's assistance in arranging their programs for the coming season should send us a list of their meeting dates for the year and designate those for which lectures will be desired. If we can arrange a complete schedule beforehand we feel sure the service will be much more satisfactory.

Many were disappointed last year because the applications were not received long enough before the dates of meetings for us to make the necessary arrangements for the lecturers and in many instances the dates conflicted with other dates that had already been made.

As soon as a complete schedule of these lecture dates has been prepared it will be published in the Journal. We expect to send out to each of the secretaries of county societies a list of subjects and lecturers—some time in August—and in the meantime we trust that the program committee will determine the meeting dates for which they wish the bureau service and will be prepared to make their applications promptly on receipt of the notices.

———R———

Application.

You will find in another part of this issue an application blank which you may use in making your application for a commission in the Medical Reserve Corps, U. S. Army. We will call your attention to some of the very important requirements to accompany each application when filled out.

First, this application when filled out must be sworn to before a notary public.

Second, it must be accompanied by a county clerk's certificate certifying to the fact that the applicant is a licensed practitioner.

Third, two letters from citizens testifying to the character of the applicant must accompany the application.

When the application has been properly filled out and sworn to it should be sent, together with the certificate and letters above mentioned, to the nearest chairman of examining boards. These for Kansas are given in the official list as follows:

East Hutchinson — Lieut. Herbert L. Scales, 500 Avenue A.

Ft. Riley—The Surgeon.

Leavenworth — Lieut. James R. Langworthy, M. R. C., Ryan Building.

———R———

Disposition of Physicians Who Are Drafted.

There has been no authorized statement that physicians within the draft age who may be drafted will be given service in the medical department, but since the policy of the government seems to favor the utilization of its men in those lines for which they are best fitted, it is reasonable to presume that physicians who may be drafted will be placed in the medical department. It has been rumored that these men would not be commissioned as medical officers but would be given subordinate positions in the medical service. There seems to be no authority for this assumption.

———R———

Casualties in the Medical Service.

Col. Goodwin of the British Army Medical Service has secured official data concerning the casualties in the medical service from the War Office. According to this report, from the beginning of the war up to June 23, there have been 195 killed, 707 wounded and 62 deaths from disease. This is much less alarming than the reports which have been so freely circulated.

———R———

Medical Students Not Exempt.

Surgeon-General Gorgas has authorized the announcement that medical students will not be exempt from draft, but they may be granted furloughs in order that they may complete their courses in medicine.

Dr. Joshua M. Eisenbise, University Medical College, Kansas City, Mo., 1900, died suddenly following a surgical operation at Bethany Hospital, Kansas City, Kansas, June 1, 1917. Dr. Eisenbise practiced at Fairview, Brown County, Kansas, for a number of years, and the last eight years at Quinter, Kansas. Was a member of the Tri-County Medical and Kansas Medical Societies.

R

SOCIETY NOTES.

COMMITTEES.

The following committees have been appointed by President Huffman for the ensuing year:

Committee on Public Policy and Legislation—J. E. Sawtell, Kansas City; W. E. McVey, Topeka; J. F. Gsell, Wichita; O. D. Walker, Salina; J. S. Cummings, Bronson.

Committee on Public Health and Education—C. C. Nesselrode, Kansas City; M. Trueheart, Sterling; T. A. Jones, Liberal; M. T. Sudler, Lawrence; O. D. Walker, Salina; S. J. Crumbine, Topeka; Emma L. Hill, Oswego.

STAFFORD COUNTY SOCIETY.

The Stafford County Medical Society met in Stafford, June 13. Members present, J. N. Rose, N. L. Butler, J. H. Webb, M. M. Hart, J. T. Scott, C. S. Adams, F. Kerr, Newell Pankratz. The following resolution was adopted:

Whereas, our government has been forced to declare that a state of war exists between the United States and Germany, therefore be it resolved that we, the members of the Stafford County Medical Society, hereby express absolute faith in our President and the justice of the course he is pursuing, and as loyal and patriotic citizens tender our services in any capacity where we may be deemed capable of rendering assistance.

Dr. Edna Wallace had a paper on Urine Analysis which was read by the secretary, she being unable to be present.

A war meeting was called to meet in St. John June 18. The meeting was attended by a majority of the membership and was enthusiastic. It was for the purpose of gathering such information as might be of value and assistance to the Surgeon General. The names, ages and sex of the physicians of Stafford County and the number who have enlisted or who contemplate enlistment were obtained. This information will be forwarded to the Secretary of our State Society. The following resolution was adopted:

Resolved that we, the members of the Stafford County Medical Society, take pride in the fact that several of our members have already enlisted in the Medical Reserve Corps, and as an expression of that pride in them and in any others who may enlist in the future, hereby pledge ourselves to do all in our power to protect their home interests and to keep intact for them their private practices until such time as they may be able to return and resume same.

The next meeting of the society will be held in St. John, July 11, 6 P.M.

J. T. Scott, Secretary.

WASHINGTON COUNTY SOCIETY.

The Washington County Medical Society met on June 19 for the purpose of getting data in regard to the mobilization of medical men for the army, and for the purpose of electing officers.

Drs. H. D. Smith, of Washington; H. Hawthorne, of Palmer, and M. R. Thorne, of Morrowville, have decided to enter the army service.

Dr. W. C. Burnaman, of Washington, was elected president, and Dr. Robert Algie, of Washington, was elected secretary of the society. Another meeting will be held in July and more definite data will be furnished concerning the matter of service with the army.

W. C. Burnaman, President.

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BOOKS.

Diseases of the Genito-Urinary Organs and the Kidneys.

Fourth revised edition. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M.D., Professor of Clinical Medicine, University and Bellevue Hospital Medical College. Octavo of 666 pages, 301 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $5.50 net; half morocco, $7 net.

The fourth edition of this text book has been considerably revised and new material has been added. A great deal of space is devoted to the examination of patients, the instruments used and the technic of their use. All the methods to be pursued in the diagnosis of diseases of the genito-urinary organs and kidneys are carefully described. As fully in detail the various methods of treatment are also described. Surgical procedures are carefully outlined and well illustrated.

On the whole one can only express the

fullest appreciation of the efforts of the authors in presenting to the profession a work so comprehensive as this.

Medical State Board Questions and Answers.

Fourth edition, thoroughly revised. By R. Max Goepp, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic; Assistant Professor of Clinical Medicine, Jefferson Medical College. Octavo volume of 724 pages. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $4.25 net.

There must be a considerable demand for books of this kind to justify a fourth edition. The value of this book, however, does not all lie in its usefulness to one who is preparing for a state board examination. As a ready reference book it is wonderfully handy. The questions and answers are classified and indexed so that information upon any subject in medicine may be readily obtained. The answers have been carefully prepared and are accurately though concisely stated. It is well worth having on one's reading table for quick reference.

Diseases of the Stomach, Intestines, and Pancreas.

New (third) edition, revised. By Robert Coleman Kemp, M.D., Professor of Gastrointestinal Diseases at the Fordham University Medical School. Third edition, revised and enlarged. Octavo of 1,096 pages with 438 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $7 net; half morocco, $8.50 net.

A special section in this new edition has been devoted to the radiography of gastric ulcer, gastric cancer, duodenal ulcer and gall-bladder disease. A chapter is given to Lane's kinks, Jackson's membrane, duodenal dilatation and ileo-cecal valve incompetency. There is also a section on "Subinfection" and "Protein Absorption."

The symptoms and diagnosis of visceral displacements are given particular attention and their treatment, especially by mechanical methods, fully described. The book is well illustrated and many of the clinical pictures are made from photographs.

Among the opinions expressed by the author we note particularly his conviction that chronic gastric ulcer should be considered a precancerous condition and be treated by resection. In his opinion gastro-intestinal neuroses are extremely rare.

Traumatic Surgery.

By John J. Moorhead, M.D., F.A.C.S. Adjunct Professor of Surgery in the New York Post-Graduate School and Hospital. Octavo volume of 760 pages with 522 original illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $6.50 net; half morocco, $8 net.

One of the most timely books that has come to us is this one by Moorhead on Traumatic Surgery. In his preface the author says: "The profession at large has become reawakened to the problems of accident surgery, and, incidentally, has come into a new relationship with the injured because of the operation of compensation and allied laws; likewise, the victims of accident, and civic, judicial, legal, and other agencies are exacting from the physician a higher grade of care and placing on him an added burden of responsibility."

At this time, however, when the profession is largely interested in casualties of the war, this book is particularly timely. Much of the work is very adaptable to the needs of the army surgeon.

International Clinics.

Volume II of the Twenty-Seventh Series. A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, with the collaboration of Charles H. Mayo, M.D. Published by J. B. Lippincott Company, Philadelphia and London. Price, $2.00.

One of the very interesting clinics in this number is on Gout and Infectious Arthritis, by Christian. Then there is a clinic by L. F. Barker on Typhoid Fever with Complications; one by Thos. McCrea on Jaundice with Enlarged Liver; one by J. J. Walsh on Constipation and Natural Food; a clinic on Fractures by E. Martin; a clinic of Vertigo by I. H. Jones; a skin clinic by Hartzell; also clinics by Cooke, Alspach and Posey.

Then there are articles on Treatment, on Medicine, Dermatology, Gynecology, Ophthalmology, Surgery, and History.

Ophthalmology.

A text book of Ophthalmology by Hofrat Ernst Fuchs, Professor of Ophthalmology in the University of Vienna; authorized translation from the twelfth German edition; completely revised and reset, with numerous additions specially supplied by the author and otherwise much enlarged by Alexander Duane, M.D., Surgeon Emeritus, Knapp Memorial Hospital, New York. With 462 illustrations. Published by J. B. Lippincott Co., Philadelphia and London. Price, $7.

The subject of ophthalmology is elaborately presented by Fuchs in the German edition of his text book, but in this American edition a very marked improvement has been made. The subject matter has been carefully rearranged and many very important additions have been made. This edition is therefore larger and much more comprehensive than the German edition or than any previous American edition.

Among the added subjects which are

discussed or about which new material has been presented may be mentioned: Tubercular and Vaccine Therapy, Visual Field and Color Testing, The Mapping of Scotoma and the Blind Spot, Squirrel Plague and Eel's Blood Conjunctivitis, Peculiarities of Conjunctivitis in the Near East.

The Practical Medicine Series.

Under the general editorial charge of Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern Medical School. Price of this series, $10. The Year Book Publishers, 327 South LaSalle Street, Chicago.

Volume II—General Surgery.

Edited by Albert J. Ochsner, M.D., F.R.M.S., LL.D., F.A.C.S., Surgeon-in-Chief Augustana and St. Mary's of Nazareth Hospitals; Professor of Surgery in the Medical Department of the State University of Illinois.

The present volume is one of a series of ten issued at about monthly intervals, and covering the entire field of medicine and surgery. Each volume being complete on the subject of which it treats for the year prior to its publication.

Price of this volume is $2.

The Surgical Clinics of Chicago.

Volume I, Number II (April, 1917). Octavo of 227 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Published bi-monthly. Price per year, $10.

Among the articles in this number we note one by Ochsner on Carcinoma of the Breast, one by Percy on Pernicious Anemia, one by Ridlon on Congenital Dislocation of Hip, a clinic by Bevan on Surgical Lesions of the Colon. Andrews discusses divided blood-vessels as aids to accurate wound closure. Halstead has a clinic with three interesting cases. Harris does a laryngectomy under nerve blocking. Beck does some plastic operations on the upper extremity. There are also clinics by Kanavel, Eisendrath, Davis, Phemister, Greensfelder, McKenna, and Dyas.

The Medical Clinics of Chicago.

Volume II, Number VI (May, 1917). Octavo of 252 pages, 46 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published bi-monthly. Price per year, paper, $8; cloth, $12.

This number of the Clinics ends its separate publication, as it will hereafter be merged into The Medical Clinics of North America. It will be issued six times a year and each number will be devoted exclusively to the work of one medical center. The July number will be devoted to the work of the Johns Hopkins Hospital. The September number will be devoted to the work of the colleges in Philadelphia.

The last number of Clinics is up to its usual high standard and contains contributions by Elliott, Smithies, Portis, Williamson, Beifeld, Corbus, Strauss, Hamill, Mix, Tice, Abt and Strauss, Wright.

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Poliomyelitis.

In the routine examination of a patient in the contagious ward of the Cook County Hospital with the diagnosis of scarlet fever a lumbar puncture was performed by Harry Gauss, Chicago (Journal A.M.A., March 10, 1917), who reports the finding in cultures from the spinal fluid of a small gram-positive coccus showing the cultural and morphological characters of the micrococcus described by Nazum as occurring in the cerebrospinal fluid of poliomyelitis. Repeated inoculations yielded the same result. From the nasal discharge a similar micrococcus was obtained which was agglutinated by the antipoliomyelitic serum in a dilution of 1:500; control organisms did not so agglutinate. Clinically the case resembled the cerebral type of poliomyelitis, and the subsequent course of the disease made the admitting diagnosis quite doubtful. Later the child developed bronchopneumonia and died. Post mortem examination confirmed the diagnosis of poliomyelitis and bronchopneumonia. The micrococcus was also obtained in another patient both in direct smear and in culture. To settle the question of contamination in these cases a study of the spinal fluid in children in the contagious wards was made. Lumbar punctures were performed in fifty patients with scarlet fever and associated exanthems such as diphtheria and varicella. Cultures made with the same technic as in the previous ones and also by other methods remained sterile except for four tubes in which the bacillus subtilis and the staphylococcus were contained as contaminations. The pressure of the spinal fluid was varied with the mental and physical attitudes of the patients and the cell count varied from 1 to 20 cells per millimeter. Gauss' summary is as follows: "The micrococcus described by Nuzum as occurring in the cerebrospinal fluid of acute exanthems. The pressure of the spinal fluid varies with certain physiologic states of the patient. The average cell count of the cerebrospinal fluid in scarlet fever is 8 cells per cubic millimeter. Lymphocytes predominate."

APPLICATION FOR APPOINTMENT IN THE MEDICAL RESERVE CORPS, U. S. ARMY.

....., ...

....., 191.....

To the SURGEON GENERAL, U. S. Army,
Washington, D. C.

Sir: I hereby make application to be examined for appointment in the Medical Reserve Corps, U. S. Army, and inclose testimonials as to my character and habits.*

I certify that to the best of my knowledge and belief I am laboring under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required of me if appointed in the Medical Reserve Corps, U. S. Army, and that the answers given to the interrogatories below are true and correct in every respect.

I furthermore state my willingness to proceed to such point for examination as may be designated by the Surgeon General, with the understanding that the journey entailed thereby must be made at my own expense.

INTERROGATORIES.

1. What is your name in full?.....
(Including your full middle name)

2. What was the date of your birth?.....

3. Where were you born?.....
(Give state and city or county; if foreign born, give country.)

4. When and where were you naturalized?.....
(For applicants of alien birth only.)

5. Are you married or single?..... 6. Have you any minor children; if so, how many?.....

7. What is your height, in inches?..... 8. Your weight, in pounds?.....

9. Give the nature and dates of all serious sicknesses and injuries which you have suffered:

10. If either parent or brother or sister has died, state cause and age in each case:

11. Do you use intoxicating liquors or narcotics; if so, to what extent? .....

12. Have you found your health or habits to interfere with your success in civil life? .....

13. What academy, high school, college, or university have you attended? State periods of attendance from year to year, and whether you were graduated, giving date or dates of graduation:

14. Name any other educational advantages you have had, such as private tuition, foreign travel, etc.:

15. Give all literary or scientific degrees you have taken, if any, names of institutions granting them, and dates:

16. With what ancient or modern languages or branches of science are you acquainted?

*Testimonials as to character and habits from at least two reputable persons must accompany this application. Political recommendations are not necessary.

17. How many courses of lectures have you attended? Names of colleges and dates:

18. When and where were you graduated in medicine?

19. Have you been before a State examining board? If so, state when, where, and with what result.*

20. Are you a member of any State medical society? If so, give its name:

21. Have you had service in a hospital? If so, state where and in what capacity, giving inclusive dates of each kind of service:

22. What clinical experience have you had in dispensary or private practice?

23. Have you paid particular attention to any specialty in medicine; if so, what branch?

24. What opportunities for instruction or practice in operative surgery have you had?

25. Have you previously been an applicant for entry into the United States service? If so, state when, where, and with what result (if rejected state why):

26. Are you a member of the organized militia? If so, state with what organization and in what capacity:

27. Have you been in the military or naval service of the United States as cadet or otherwise? If so, give inclusive dates of service with each organization, designating it:

28. What occupation, if any, have you followed other than that of student or practitioner?

29. What is your present post office address? .....

30. What is your permanent residence? .....

31. (Signature of applicant) .....

32. The correctness of all the statements made above was subscribed and sworn to by the applicant before me this.....day of....., 191.....

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*This application must be accompanied by a certificate from the proper official that the applicant is duly registered to practice medicine in the State in which he resides.

Form 149
W. D., S. G. O.
(Revised May 3, 1917)

Application for Examination for Appointment in the Medical Reserve Corps, U. S. Army.

.....Inclosures.

New and Nonofficial Remedies.

Kephalin-Armour. — The hemostatic phosphatid obtained from spinal cord and brain tissue of mammals. It is essentially the same as Brain Lipoid, N.N.R. For a discussion of the actions and uses see New and Nonofficial Remedies, 1917, p. 124, under "Fibrin Ferments and Thromboplastic Substances (Kephalin).;; Kephalin-Armour is applied freely to bleeding or oozing surfaces in 1 to 2 per cent suspensions in physiological sodium chlorid solution. Armour & Co., Chicago. (Jour. A. M. A., June 2, 1917, p. 1625.)

Thorium Nitrate.—A white substance, very soluble in water and alcohol. Soluble thorium salts resemble alum in their local astringent and irritant properties. They are not absorbed from the alimentary cnaal. The non-precipitant double salts of thorium are practically non-toxic, even intravenously. Thorium salts are fairly radioactive.

Thorium Sodium Citrate Solution.—Prepared by dissolving thorium nitrate, 10 Gm., and sodium citrate, 15 Gm., in water, neutralizing with sodium hydroxide and diluting to 100 Cc. Being impervious to Roentgen rays, the solution is used to obtain cystograms of the renal pelvis and urinary bladder.

Thorium Solution for Pyelography.—H. W. & D., 10 per cent. It is the same as thorium citrate solution. Prepared by Hynson, Westcott & Dunning, Baltimore, Md.

Stronger Thorium Sodium Citrate Solution.—Prepared by dissolving thorium nitrate, 15 Gm., sodium citrate, 22.5 Gm., in water, neutralizing with sodium hydroxide and diluting to 100 Cc. It is used for obtaining urethral pyelograms.

Thorium Solution for Pyelography.—H. W. & D., 15 per cent. It is the same as thorium citrate solution. Prepared by Hynson, Westcott & Dunning, Baltimore, Md. (Jour. A. M. A., June 16, 1917, p. 1817.)

Betanaphthol Benzoate—Anthony-Hammond Chemical Works, Inc. A brand of betanaphthol benzoate which complies with the N. N. R. standards for this drug. Anthony-Hammond Chemical Works, Inc., New York City.

Calcium Cacodylate.—The calcium salt of cacodylic acid containing from 43.5 to 48 per cent of arsenic in the form of cacodylic acid and free from arsenate and monomethylarsenate. It has the mild arsenic action of cacodylates. Calcium cacodylate is white, almost odorless, and very soluble in water.

Ampuls Calcium Cacodylate Solution—Mulford. Each ampule contains calcium cacodylate 0.045 Gm. in 1 Cc. The H. K. Mulford Co., Philadelphia, Pa.

Chlorazene Surgical Cream.—It contains chlorazene, 1 Gm., in 100 Gm. of a base composed of sodium stearate 15 per cent and water 85 per cent. The Abbott Laboratories, Chicago.

Borcherdt's Malt Extract with Cod Liver Oil.—A liquid composed of cod liver oil 20 per cent, and Borcherdt's Malt Extract Plain 80 per cent. The Borcherdt Malt Extract Co., Chicago.

Borcherdt's Malt Extract with Creosote. —100 Cc. contain beechwood creosote, 4 minims per fluid ounce, in Borcherdt's Malt Extract Plain. The Borcherdt Malt Extract Co., Chicago.

Borcherdt's Malt Extract with Cascara Sagrada.—100 Cc. contain cascara sagrada 60 grains per fluid ounce, in Borcherdt's Malt Extract Plain. The Borcherdt Malt Extract Co., Chicago. (Jour. A. M. A., June 23, 1917, p. 1911.)

Lipoiodine-Ciba. — The ethyl ester of iodobrassidic acid containing 41 per cent of iodin. Lipoiodine-Ciba is odorless, tasteless, insoluble in water but very soluble in fatty oils. When administered it is absorbed almost completely and excreted more slowly than inorganic iodids but more rapidly than with other iodized fats. It is said to be less likely to produce gastric irritation than ordinary iodids. It is supplied only in the form of Tablets Lipoiodine-Ciba, 0.3 Gm. A. Klipstein & Co., New York. (Jour. A. M. A., June 30, 1917, p. 1985.)

R

Propaganda for Reform.

Some Misbranded Cough Remedies.—The following "cough remedies" have been declared misbranded under the U. S. Food and Drugs Act, chiefly because the curative claims made for them were found to be false and fraudulent: Barker's Remedy for Catarrh, Coughs, Colds and Rheumatism is essentially sugar and water with a small amount of cubebs, potassium iodid and creosote. Mathieu's Cough Syrup, formerly called Syrup of Tar and Cod-Liver Oil, containing little, if any, tar, and no cod-liver oil, but containing alcohol, chloroform, creosote and menthol. Forrest's Juniper Tar, containing alcohol, petroleum and oil of tar. Terraline Plain, found to be simply liquid petrolatum. Terraline with Heroin, found to be liquid pe-

trolatum with heroin. Classe's Cough Syrup, a syrup containing alcohol, glycerin, tolu and wild cherry, and having an odor of tar. Essence Menthol-Laxene, containing alcohol, menthol, ammonium salts, chlorid, sugar, drug extract and an unidentified alkaloid. Brown's Acacian Balsam, containing alcohol, acacia, nitrate, licorice, meconic acid, tartrates, reducing sugar, sodium and potassium compounds. Sykes' Sure Cure for Catarrh, containing potassium chlorate, ammonium chlorid and small amounts of alcohol, hydrastin and methyl salicylate. Warner's White Wine of Tar Syrup, containing opium and alcohol, no tar and but an insignificant amount of wine. Rawleigh's Golden Cough Syrup, containing alcohol, chloroform, menthol, guaiacol and perhaps horehound. Rawleigh's Ru-Mex-Ol, containing 26½ per cent alcohol and vegetable matter in which rhubarb was indicated. Gooch's Mexican Syrup of Wild Cherry, Tar, etc., containing morphin and alcohol, sugar, glycerin, methyl salicylate and benzaldehyde as flavor, and small amounts of tar and cherry. (Jour. A.M.A., June 16, 1917, p. 1863.)

Flavored Epsom Salt.—When a physician prescribes a dose of Epsom Salt to be taken in one of the official aromatic waters, he does not create a new invention. Yet the U. S. Patent Office has granted a patent for the "discovery" of a method for flavoring Epsom Salt. (Jour. A. M. A., June 23, 1917, p. 1914.)

The Calcium Content of the Blood.—It has been found that the calcium content of the blood plasma of cattle is remarkably constant, even when there is a continuous withdrawal as a result of pregnancy or lactation. It has also been found that there is no marked deviation from the normal in the calcium content of the blood serum of patients in the various stages of pulmonary tuberculosis. Even when a high milk diet was furnished over long periods, the calcium content of the blood was not increased above normal. Further, it was shown that the calcium content of the blood serum of normal human adults did not differ from that in sufferers from tuberculosis. Finally, it has been found that the calcium content of blood plasma differs little from the normal in advanced cases of uremia or in hemophilia or in purpura hemorrhagica. (Jour. A. M. A., June 23, 1917, p. 1915.)

Russell Emulsion and Russel Prepared Green Bone.—The Council on Pharmacy and Chemistry reports that "The Russell Emulsion" and "The Russell Prepared Green Bone," put out by the Standard Emulsion Company, are inadmissible to New and Nonofficial Remedies. The Russell Emulsion is said to be composed of beef-fat, cocoanut, peanut and cottonseed oils, held in suspension by albumin. The mixture is called a "physiological" emulsion and is exploited on the theory that lime starvation is a main factor in tuberculosis and that large amounts of fat are required for the lime starved. There is no proof that tuberculosis is due to an insufficiency of lime in the tissues, and the claims made for the emulsion are grossly unwarranted. Particular attention is called to the exploitation of the emulsion by one Dr. Hague who talks before medical societies. The Russell Prepared Green Bone is said to be made by digesting chicken bones with hydrochloric acid and pepsin and adding glycerin at the end of the digestion. This is advertised as a lime food. The greater value of a few glasses of milk daily is not mentioned. (Jour. A. M. A., June 23, 1917, p. 1931.)

More Misbranded Nostrums.—The following "patent medicines" have been found misbranded under the U. S. Food and Drugs Act, chiefly because the curative claims made for them were unwarranted and untrue: Sterline's Asthma and Hay Fever Remedy is a water-alcohol solution containing potassium and sodium iodids, bromids and acetates, as well as some laxative substance. Sterline's Bronchial Elixir, a solution of morphine, potassium citrate and aromatics in alcohol and water. Lung-Vita, consisted essentially of a petroleum oil, saponifiable oil and a solution containing sugar and glycerin, with a small quantity of benzoic acid. Arch Brand Nerve Tonic, a compound hypophosphite syrup. Arch Brand Blood Remedy, containing 18 per cent alcohol, sugar, potassium iodid, sarsaparilla and emodin-bearing drugs. (Jour. A. M. A., June 23, 1917, p. 1932.)

Brom-I-Phos.—The Council on Pharmacy and Chemistry reports that Brom-I-Phos (The National Drug Co.) is not eligible for admission to New and Nonofficial Remedies. The label declared the preparation to contain iodin, bromin and phosphorus in an aromatic base. The A. M. A. Chemical Laboratory found that Brom-I-Phos contained no free iodin, no free bromin, and no elementary phosphorus; instead it appeared to be an alcoholic preparation containing iodid, bromid and a little phosphate. The Council rejected Brom-I-Phos because the statement of composition was unsatisfactory and mis-

leading; because the therapeutic claims were exaggerated, and because the combination of bromin, iodin and phosphorus, or of bromid, iodid and phosphate is irrational. (Jour. A. M. A., June 30, 1917, p. 2001.)

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Hypodermic Medication.

Hypodermic medication usually means emergency medication. When the occasion for it arrives, the physician, if he is to employ a tablet solution, is fortunate if he has tablets upon which he can depend. The failure of the tablet is his failure—he cannot shift the burden of responsibility. And tablets for hypodermic use, to be reliable, must possess a number of important qualifications. They must be true to label; they must be active; they must contain a definite amound of medicament; they must be soluble.

These thoughts were vividly impressed upon the mind of the writer upon the occasion of a recent visit to the hypodermic-tablet department of Parke, Davis & Co. Here we see hypodermic-tablet manufacture reduced to a science. Here we find tablet-making facilities that exist probably nowhere else in the world. The equipment is complete to the last degree. The department is spacious, light, airy, clean. It is supervised by an expert who has specialized for years in this branch of manufacturing pharmacy and who has selected his assistants with discrimination. Every worker is an adept. Every hand is schooled to its task.

In the manufacture of Parke, Davis & Co.'s hypodermic-tablets the components of the various formulas are weighed and reweighed, checked and rechecked by two experienced pharmacists working independently, one acting as a check upon the other, thus guarding against the possibility of error.

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Chlorazene and Dakin's Solution.

How does Chlorazene compare with the Hypochlorites or Dakin's Solution? You have heard a great deal about the Hypochlorites, commonly known as Dakin's Solution.

The difference between Chlorazene and Dakin's Solution may not be clear to you. It is just this: Chlorazene is a definte chemical compound (para-toluene-sodium-sulphochloramide) which was developed by Dr. H. D. Dakin of the Rockefeller Institute, subsequent to his work with the hypochlorites. This new synthetic is known as Chloramine T in Europe and Chlorazene in the United States. Clorazene is an improvement upon the Hypochlorites. Doctor Dakin has gone a step further and developed in Clorazene an antiseptic which is not only as powerful as the hypochlorites and similar in action butu one which is less toxic, less irritant, and stable, both in powder and solution. Chlorazene is more convenient than Dakin's Solution and more generally efficient.

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The pathology of former days concerned itself only with things after they had happened. Research was confined mostly to cadavers and the knowledge obtained was only in a general way applied to the extension of medical science. Now, however, this branch has a more direct and practical usefulness. A few up-to-date institutions, to which the Battle Creek Sanitarium has now been added, have a pathologist on duty whenever operations are beinf performed. If the surgeon finds a growth of the nature of which he is not sure, a portion of it is at once handed to the pathologist. With his microtome he cuts a slice which may be as thin as one five-thousandth of an inch, and subjects it to the microscope. Upon his diagnosis as to the nature of the disease process depends the decision of the surgeon as to what should be done.

This investigation is done on living tissue frozen instantaneously with liquid car-

bonic acid and takes on an average only five minutes. The information thus obtained is a scientific check upon the clinical diagnosis and is valuable in every surgical case. It is of vital importance in the numerous cases of early cancer, which cannot be diagnosed in any other way, as the early beginning of every cancer is a cellular phenomenon and beyond the concept of the naked eye. The accumulated experience of all modern surgical clinics shows that cancer begins as a local disease and can be cured at this early stage by radical operation.

The unfortunate results of late operations in cancer were due to the fact that a diagnosis of cancer was not made until a demonstrable and palpable tumor had developed and the disease spread all through the system. The present-day horror of cancer that exists in the lay mind is based on the distressing results of surgical operations—and for that matter of every other known method of treatment—in such late and advanced cases.

In early cases surgery offers the greatest chance for cure to the patient. Early operation however postulates early diagnosis by an expert surgical pathologist. About sixty years ago the first laboratory was erected in connection with internal medicine. It is to be hoped in the future no hospital will be found without a laboratory of biopathology adjoining the operating room.

———R———

Wholesomeness and Economy.

The nation is at war. To protect our rights we must have an efficient fighting machine. The men must be given wholesome and nutritious food in sufficient quantity. The stupendous character of the conflict necessitates rigid economy of both men and material. Nothing is economy that renders food less wholesome, but there is no excuse for catering to prejudice at an increased cost. We shall need all our dollars before this war is over. We must secure for our soldiers the most wholesome food at the least cost.

Our governmental departments are subject to criticism by the whole country, and it would not be surprising if they catered to known prejudices in order to avoid annoying criticism. But in time of war we must be governed by scientific facts and not by prejudice. Big interests whose advantage lies in the support of a prejudice may criticise, but our leaders must be big enough to practice economy in spite of such unjust criticism. That economy will be practiced and that scientific facts and not prejudice will guide the government in the selection of wholesome foods is clearly indicated by recent actions of the Department of the Interior, the Army, and the Navy. All these departments have recognized the findings of the Referee Board of Scientific Experts who found that alum baking powders were as healthful as any other baking powders. These departments have recently purchased large quantities of alum phosphate baking powders. This is the type which was furnished our soldiers on the Mexican border and subsequently to our sailors and which proved so satisfactory. The people of the United States have recognized the wholesomeness and economy of this type of baking powder for years. Eighty per cent of the baking powder used in the United States contains alum. Its wholesomeness is unquestioned. Its economy is marked. Not only are alum powders generally much stronger, so strong that the manufacturers recommend the use of only half the quantity called for by high-priced baking powders, but the price of the powder pound for pound is but half as much. This means that the use of one pound of phosphate alum powder at 25 cents does the work of two pounds of the other powders costing one dollar. The saving is 75 cents. War prices would have no terrors if we could make an equal saving on all our foods by substituting something equally wholesome, twice as effective and at half the price.

———R———

The Electrocardiograph.

Harold E. V. Pardee, New York (Journal A. M. A., April 28, 1917), says that while the electrocardiograph has been used in the diagnosis of arrhythmias and myocardial disease, yet the use of the information it gives in regard to the hypertrophy of the various cavities of the heart has been considerably overlooked. Each valvular lesion leads to the hypertrophy of one or more of the chambers of the heart and this shows on the electrocardiogram. "Hypertrophy of the auricle is shown by an increase in the height of the wave P, over 2 mm., being abnormal. Hypertrophy of the right ventricle is also shown in Figure 1, the electrocardiogram having the R wave turned downward by Lead I and upward by Leas II and III. Hypertrophy of the left ventricle is shown by a record having the R wave of Lead III turned downward, while it is turned upward by Leads I and II." He defines the term "lead," which is applied to the method of leading

off the heart's current from the body to the galvanometer. "For Lead I the right arm and left arm are connected to the instrument; for Lead II the right arm and left leg, and for Lead III the left arm and left leg. By each of these leads there is obtained a slightly different curve, even from a normal heart; but the curves are all alike in showing a small wave, P, due to the auricle, and a tall, sharply pointed wave, R, the smaller peak, T, both due to the ventricle. In records from normal hearts the R wave is directed upward in all three leads, and in such hearts it has been found that the relation of the weight of the left ventricle to that of the right ventricle varies from 2:1 to 1.5:1. If either the right or left ventricle becomes hypertrophied, this proportion is disturbed and the R wave of the electrocardiogram will vary accordingly, as has been described previously." Pardee gives examples of the signs which the electrocardiograph reveals. Cardiac dilatation does not disturb the mass relation of the ventricles and does not have this effect on the R wave, thus aiding us to distinguish hypertrophy from dilatation. In mitral stenosis the electrocardiogram should show the effect of the resultant hypertrophy of the right ventricle in a downward R I, the I referring to the lead employed, or perhaps of the hypertrophied auricle in an abnormally large P wave. If this is absent, it should be considered evidence against the mitral lesion. When there is a suspicion of an aortic regurgitation, we should expect to find the downward R III, denoting left ventricular hypertrophy, if the aortic lead is present, and this should also indicate mitral regurgitation. If mitral regurgitation is marked or of long standing, the left ventricle is not able to pass the blood fast enough and the right ventricle has to overcome the resistance and it also becomes hypertrophied. The result is that the heart as a whole shows what might be called a balanced hypertrophy. With more than one lesion present the effect on each has to be considered separately, and he gives the particulars to be observed in detail and thir values in diagnosis. One must always bear in mind in using the electrocardiogram that increased blood pressure leads to hypertrophy of the left ventricle and we should take both the systolic and diastolic pressures before drawing conclusions. He points out the value of the electrocardiograph when used in this way over other methods and summarizes as follows: "It may be said that the electrocardiograph will give evidence for or against the presence or absence of any single valvular lesion which is suspected, by showing the presence or absence of the ventricular hypertrophy which the lesion produces. In combined lesions, when one is plain and another suspected, it will again tell whether or not the suspicion is correct. It will show whether or not congenital murmurs arise from serious structural defects in the heart. Lastly, it will help to tell whether enlargement is due to hypertrophy or to dilatation."

Calcium in the Blood.

J. O. Halverson, H. K. Mohler, and O. Bergeim, Philadelphia (Journal A. M. A., May 5, 1917), say that while high lime administration has been recommended in tuberculosis by many authors for many years, our knowledge of the calcium content of the blood has been slight thus far. Sufficient work has not been done, nor have the findings been constant enough to definitely show that the preliminary loss of lime predisposes to tuberculosis and that the losses in severe cases are essential manifestations of the disease. The unsatisfactory status of our knowledge of calcium metabolism is also true to a considerable extent as regards calcium metabolism in health. Our knowledge of the calcium content of the blood in the various conditions has been almost negligible and the authors are not aware that any determinations of this element in the blood of tuberculous patients have heretofore been made. They have, therefore, taken up the subject with the method employed for the determination of the lime elaborated by two of the authors. The determinations were made on the serum which they have found in the pathologic condition so far studied, not to deviate significantly from the plasma in calcium content. The blood was taken before breakfast with few exceptions, due caution being taken not to allow milk or other food high in calcium content at the previous evening meal. "The calcium content of the blood serum of normal human adults appears to range between 9 and 11 mg. per hundred c.c., usually, however, below 10.5 mg. It will be noted that the maximum variations observed in tuberculosis are from 8.4 to 11 mg. of calcium per hundred c.c. No striking deviations from the normal were noted in this condition. In the advanced cases the variations were the most marked. Rather high values were obtained when the blood was drawn after the noon meal

which might possibly indicate that the ingestion of the food had some slight temporary effect on the calcium level. Considerable amounts of fat were found in these specimens of blood, suggesting that fat was being absorbed and transported. Thus it appeared to be desirable to take specimens for blood calcium determinations before breakfast, which was done in nearly all the cases herein studied. It will be noted that the average value obtained in the far advanced cases in which the patient died within two months of this examination was 9.1 mg., while the average of the far advanced cases showing slight improvement was 10.1 mg., an appreciably high figure. A similar relation holds for the moderately advanced cases. The differences, however, are not sufficiently large or sufficiently constant to permit the drawing of a definite conclusion in the present state of our knowledge. In the convalescing cases the calcium content lies well within normal limits, and varies but little. The average figure obtained was 9.7 mg. per hundred c.c. of blood serum. The diets in these cases were similar, nearly all being high in milk and hence in calcium. The lowest value was obtained in a patient no longer on a high milk diet. There is no evidence, however, that the long continued high calcium diet had any tendency to increase the calcium content above average normal values." The calcium content of the blood was found within normal range in a considerable variety of pathologic conditions and other authors have found it pretty constant. In incipient cases they found the high milk diet showed a constant improvement but in no case was the calcium content increased above normal in any of the stages of pulmonary tuberculosis. The failure of the body to deposit lime around tuberculous areas is not to be ascribed to a deficiency of calcium content in the blood but rather to the inability of the cells of the tuberculous area to properly utilize the available calcium.

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Tuberculosis and War.

The question of the competency of men with inconclusive symptoms or traces of tuberculosis or history of previous attacks and treatment in sanatoriums or those with other pulmonary diseases, such as the various forms of bronchitis, asthma, etc., for military service is discussed by M. Fishberg, New York (Journal A. M. A., June 16, 1917). It is clear that those presenting symptoms of active tuberculosis are unfit but the large class of persons enumerated are apt to give trouble in deciding, to the examiner of recruits. Fishberg says that the examiner will be on safe grounds if he relies more on symptoms, such as fever, pulse, etc., than on physical signs or even the Roentgen ray. Dr. Osler is of the opinion that some actively tuberculous persons may be taken into active field service and British, French, and German military physicians have given testimony that clinically cured cases should not be rejected. This testimony is quoted and the reports are similar from all the armies in the field where data are available. A former attack of pneumonia should not be cause of rejection for one who has survived an attack is not more liable than others to tuberculous infection. The facts cited seem to show also that military service in the field is not more liable to reactivate dormant or quiescent tuberculosis than any civil occupation requiring muscular exertion and exposure. The morbidity and mortality from consumption in armies which undergo rather strenuous physical strain shows similar testimony. The history of a previous attack of pleurisy or pneumonia in a healthy person should be no bar to military service and chronic bronchitis, pulmonary emphysema, asthma, bronchiectasis, etc., if the heart is in good condition and there are no disabling symptoms, should also not be regarded as calling for rejection from military duty. The inquiry into the problem of whether army and navy life during peace times causes a greater mortality from tubercular disease shows that the dangers are liable to be overestimated. The death rate in the army and in persons of military age in civil life as shown by army and census statistics are decidedly in favor of the healthfulness of army life as regards tuberculosis mortality. It is true that soldiers are apt to be picked men and this in part would justify the difference, but life in the open air, good and nourishing diet, the regular hours and the removal of the deleterious features of city and industrial life is rather a benefit, and there is therefore perhaps even less liability of tuberculosis to the soldier even in active service and there is no evidence of any particular risk from contagion in the army, nor indeed among adults generally, among favorable conditions. As far as the civil population is concerned the facts would not seem to indicate any special danger to the general population from infection from tuberculous soldiers. Available evidence furnished by persons with

exceptional opportunity shows clearly that tuberculosis has not changed the morbidity and mortality rates in countries involved in the present great war. The problem of tuberculous infection of soldiers, Fishberg says, need not be considered seriously. Primary tuberculosis in the military service is rare. Most adults have been infected with tubercle bacilli during childhood and immunized against exogenic reinfection with the same virus, and in the vast majority of tuberculous cases in the war it has been found that they have been infected with the disease before enlistment. Reactivation of all dormant lesions occurs in civil life; it is doubtful whether it is any more likely to occur in military life.

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Test for Nervous Syphilis.

J. A. Cutting, Agnew, Calif. (Journal A. M. A., June 16, 1917), reports on the use of a new mastic test for nervous syphilis. While working with the colloidal gold solution, Emanuel sought to find a substitute which could be more easily prepared and with less possible error. Mastic which had been shown by Neisser and Friedman and others to be similar in action on albumin to colloidal gold was chosen and in order to try out the reaction Cutting has made mastic tests on the spinal fluid of 200 different patients at the Agnews State Hospital. In each case he made a cell count and in 100 cases the butyric acid test was used and in thirty cases the Lange reaction was also used. The Wassermann test was used in all. The mastic reaction was found to be a very delicate one if tap water was not employed. Even washing the test tubes with tap water prevented it. In seeking to find a reagent which could be used with distilled water to hold the salt and mastic in solution and which would be of universal adaptability, he finally found that a very dilute solution of potassium carbonate met all the requirements. He relates an experiment to show the advantages of this modification and gives his technic in full of the mastic test. The tabulation of the 200 mastic examinations shows that the test was made in a large proportion of all types of insanity and an analysis of its results in the different forms is given with the text. Thus far his work was confined to insane cases. What the action will be in diseases such as poliomyelitis and tuberculous meningitis needed further investigation. His conclusions are as follows: "The mastic test, when taken together with the history and with the cell count, is of undoubted aid in the diagnosis of syphilis of the nervous system. By the addition of potassium carbonate, the degree of positiveness can be graded very accurately. By first incubating and then centrifugalizing, the test can be completed in two hours. It parallels quite closely the colloidal gold reaction and is more easily interpreted and much more easily and quickly performed. In eighty-four cases of syphilis of the nervous system, the mastic test was uniformly positive."

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Absorptive Agents.

William F. Peterson, Chicago (Journal A. M. A., April 28, 1917), suggests a theory of the action of absorptive agents in the intestinal tract as advocated by Hess, Fantus and others. It is recognized that the physical properties of absorption are the main cause of the therapeutic results. We can conceive, he says, the effect of such agents as influencing a variety of factors. Toxic substances may be taken up and the systemic effect removed; ferment activity may be altered or the bacterial flora influenced. An intoxication depending on the absorption of higher split products as proteins might conceivably be modified. Test tube experiments have shown that the ordinary bacterial floral growth is not influenced, but there remains then the possibility that the good effect may be due to an alteration in the ferment activity of the intestinal juices. He reports experiments pointing in this direction and suggests two possibilities as follows: "It is probable that in diarrhea, with its rapid sweeping of the intestinal contents through to the lower levels of the intestinal tract, some of the partially hydrolized protein split products are absorbed in this more permeable portion with resulting intoxication. An inhibition of proteolysis, induced by means of the absorptive agents, might counteract this. Considering that the bacterial flora of the intestinal tract depends primarily on the nature of the substrate offered the bacteria for growth, which in turn is dependent in a large measure on the ferment activity of the intestinal secretions, it is conceivable that these agents affect the bacterial content indirectly. The greater the degree of hydrolysis of the starches and proteins, other conditions being equal, the more favorable the medium for bacterial development. If, therefore, the intestinal digestion is retarded, the rapidity of bacterial growth and the actual intestinal level of maximum bacterial activity may be appre-

ciably modified. As clinical experience has found these absorbents to be of value chiefly in the bacillary diarrheas, the latter supposition seems most probable."

Traumatic Asphyxia.

J. Garland Sherrill, Louisville, Ky. (Journal A. M. A., April 28, 1917), reports a case of traumatic asphyxia (pressure stasis ecchymotic mask) as one of sufficient rarity to be worthy of report. The patient had been squeezed between the chords of a new bridge truss, the end coming down on him being estimated as exerting a pressure of seven tons. He had been doubled up, his head brought down on his knees, for an unknown period of time. When first seen, about an hour from the time of the injury, he presented marked discoloration and swelling over the head and forehead, subconjunctival hemorrhage, rupture of each ear drum with hemorrhage, bleeding from the nose, fracture of seventh rib on right side, and various bruises over the body. There were no evidences of spinal injury. He was fully conscious and the reflexes were normal. Recovery occurred without untoward incidents, and no evidence of brain injury. Immediate surgical aid is rarely available in these cases. When possible, however, artificial respiration and oxygen may be employed. Usually shock is slight, unless the injuries are very severe. Treatment should consist in combating shock, keeping patient quiet, etc.

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The Treatment of Heart Failure Based on the Diagnosis of the Function of the Heart Muscle That Is at Fault.

P. T. BOHAN, M.D., Kansas City, Mo.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

To treat intelligently the symptoms arising from a failing myocardium, it is obviously necessary to have some understanding of the factors involved in such a condition. The finding of a murmur, the diagnosis of "cardiac dilatation," "cardiac hypertrophy," alteration of the heart rate, or the detection of an irregularity in the pulse, is too often used as an indication for heart remedies, without further analysis of the case.

The diagnosis of "heart failure" is not sufficiently complete for helpful treatment, unless it is determined which function of the myocardium (the five functions being tonicity, rhythmicity, conductivity, contractility and irritability) is at fault. This is not only the best, but much the easiest way to analyze a heart case, and, as a rule can usually be done without graphic records. In fact, in at least 95 per cent of cases the diagnosis can be made without pulse tracings or electrocardiograms; one who can interpret these records does not often need them, interesting and instructive as they may be in rare cases.

I shall briefly discuss how the general practitioner, without mechanical aid, may fairly accurately diagnose which function of the heart muscle is impaired, and, after this is done, the treatment is usually simple.

The comparative frequency of the failure of the different functions is indicated in the following table:

FUNCTION OF HEART MUSCLE AT FAULT AND ASSOCIATED PATHOLOGICAL LESION IN 261 CASES.

(1) Impairment of tonicity ..... 161 cases
- (a) Valvular lesion,
  - Aortic regurgitation .. 83
  - Mitral stenosis 9
  - Mitral regurgitation ... 3
  - — 95 cases
- (b) Endocarditis—septic ..... 16 cases
- (c) Nephritis with hypertension. 25 cases
- (d) Aneurysm. . . . . 10 cases
- (e) Pericarditis (with effusion 9, adhesive 1) ..... 10 cases
- (f) Dilated aorta ..... 5 cases

(2) Disturbance of rhythmicity.. 94 cases
- (a) Auricular fibrillation
  - Mitral stenosis 41
  - Nephritis 7
  - Aortic regurgitation ... 2
  - No obvious cause 38
  - — 88 cases
- (b) Paroxysmal tachycardia,
  - Arteriosclerosis 2
  - Pericarditis. 1
  - Aortic regurgitation ... 2
  - Focal infection 1
  - — 6 cases

(3) Depression of contractility .. 4 cases
- Chronic nephritis 3
- Exophthalmic goiter .. 1
- — 4 cases

(4) Lessened conductivity ..... 2 cases
- Both due to syphilis.

In cases where more than one function of the heart muscle was involved, and in cases with lesions of both the mitral and aortic valves, the case was classified according to the outstanding feature. As many of these patients were seen at St. Margaret's Hospital, where the material consists largely of old men with syphilis, the percentage with aortic regurgitation is too high and with auricular fibrillation too low for patients seen in private practice.

(1) Tonicity:

Loss of tone of the heart muscle and cardiac dilatation are usually regarded as synonymous, but in reality the impairment of tone comes first, dilatation is the result. The chief features are shortness of breath on exertion, cyanosis and other signs of blood stasis, such as cough with rales over the base of the lungs, dropsy, swelling of the liver and albuminuria. The most important symptom is shortness of breath on exertion, without which there is no failure of tonicity. Dropsy of cardiac origin is a positive sign that the function of tonicity is at fault, although there may be considerable loss of tone without much dropsy. The pulse rate is usually moderately increased and always regular. Impairment of tonicity alone does not alter the rhythm, and if an irregularity in rhythm is present, some other function of the heart muscle is at fault. Loss of tone means exhaustion, and this may be due to overwork of a normal heart, valvular disease (a rare cause in adults), hypertension or nephritis (one of the common causes), aneurysm or dilatation of the aorta, anemia, localized necrosis of the heart muscle (rare), or the loss of tone may result from the exhaustion due to the rapid, irregular contractions of the ventricle in auricular fibrillation (a frequent cause). As pulse tracings give us absolutely no information as to the tone of the heart muscle, this, the commonest form of heart failure, has to be diagnosed without them.

When the cause of the loss of tonicity has been ascertained in hypertension, aneurysm, anemia, valvular lesion (especially aortic regurgitation) or some other demonstrable lesion, the treatment for the cure or the amelioration of the symptoms will present itself.

Absolute rest as soon as there is shortness of breath on exertion, cannot be too strongly emphasized. To relieve anxiety and to produce sleep, morphine should not be withheld too long. Digitalis will restore the tone, but has slight or no influence on rate. If the patient is badly cyanotic and has marked dyspnoea, venesection may give some relief.

(2) Rhythmicity:

When a heart is irregular, the character of the irregularity should be determined before treatment is begun, and this can usually be done by feeling the pulse, as all forms of irregularity can be placed in one of seven groups — auricular fibrillation, paroxysmal tachycardia, respiratory arrhythmia, extrasystole, heart block, pulsus alternans and auricular flutter.

(a) Auricular Fibrillation:

Much the commonest irregularity in heart failure is the persistent irregularity due to fibrillation of the auricles. A persistent irregularity, *i.e.*, scarcely any two successive beats the same size or the same distance apart, and a rate usually considerably increased, between 100 and 160, can have no other cause than fibrillation of the auricles. This, the commonest type of irregularity, is a beautiful example of how the impairment of one function of the heart muscle may cause serious heart trouble, while the other four functions are normal. It also illustrates the importance of overwork or exhaustion as the important factor in loss of tone. The rapid, irregular contractions of the ventricle cause a loss of tonicity, with the consequent dilatation and signs of blood stasis. If fibrillation is recognized early and is properly treated, exhaustion of the heart muscle may be postponed for a number of years.

If a focus of infection be found in the tonsils, gums, sinuses or gall bladder, the indication for the relief of this causative factor is plain. Syphilis is a rare cause.

It is in this form of heart falure that drugs of the digitalis group act in a specific manner by slowing the rate, thus preventing exhaustion of the ventricles from the rapid, irregular contractions. This abnormal rhythm being usually permanent, digitalis should be given not only in sufficient dosage to keep the rate approximately normal, but should be kept up practically every day the rest of the patient's life.

(b) Paroxysmal Tachycardia:

Paroxysmal tachycardia is easily recognized by a history of attacks of rapid heart action that come on suddenly, last for a few minutes to a few days, and terminate abruptly. The pulse is always regular and the rate is between 120 and 180.

If attacks recur frequently, digitalis may, by stimulating the vagus, be beneficial. To arrest a paroxysm if holding the breath at the end of inspiration and pressure over the right vagus in the neck fails, 1/100 grain of strophanthin should be given intravenously.

(c) Respiratory Arrhythmia:

Respiratory arrhythmia is about the only irregularity except heart block (rare) in children under twelve years of age. The irregularity is greatly aggravated by deep breathing, and disappears when the pulse rate is increased by exercise and usually disappears after full doses of atropine. This is a functional disturbance due to instability of the vagus. Drugs of the digitalis group are not indicated, and may aggravate the irregularity.

(d) Extrasystole:

Extrasystole is commonly known as "intermittent pulse." The chief feature is the irregularity of the pulse between the "skips." Extrasystoles merely indicate increased irritability, and this disturbance of rhythm alone must not be considered a sign of lessened efficiency of the myocardium. Digitalis, by increasing irritability, may do harm. Excessive use of coffee, tea, alcohol or nicotine, should be prohibited. Bromides lessen irritability. Removal of foci of infection, especially apical abscesses, often relieves the condition.

(e) Heart Block:

Heart block when complete is the easiest heart affection to diagnose—the pulse rate is forty or less and perfectly regular. Incomplete block, which is quite uncommon, may be confused with extrasystole, but when there is disease in the Bundle of His, auscultation fails to revealt a heart contraction during the pause in the pulse. In syphilitic cases, antisyphilitic treatment. If there is loss of tone and the block is complete, digitalis may be given—it will do no harm. Atropine to lessen inhibition of the vagus is the ideal remedy, but seldom does any good.

(f) Pulsus Alternans:

Pulsus alternans constitutes about 5 per cent of the irregularities. It is a sign of high grade exhaustion of the heart muscle and always justifies a grave prognosis. The chief feature is an alternating large and small beat, all beats being the same distance apart. It may be recognized by feeling the pulse, or better, with the blood pressure apparatus, which may show a difference of 20 to 30 m.. between the large and small beats. Rest is the only remedy to be relied upon. Digitalis is not indicated. Good results are claimed for adrenalin given intravenously.

(g) Auricular Flutter:

Auricular flutter, also rare, is about the only irregularity that cannot usually be recognized without a pulse tracing. In a rather persistent tachycardia of cardiac origin, with a regular pulse and a rate of 120 or better, auricular flutter may be suspected. Digitalis may be given, but it sometimes causes fibrillation, which should not be feared.

(3) Conductivity:

Impairment of the function of conductivity indicates a lesion or functional disturbance of the junctional tissue between auricles and ventricles, causing heart block as described.

(4) Contractility:

The only sign of a disturbance of contractility is the alternating pulse, already described.

(5) Irritability:

An impairment of this function probably has little or nothing to do with heart failuse. When increased, and the heart rate not too fast, extra-systoles may occur.

In my experience, the best results in the treatment of heart failure are obtained only by basing the treatment on the determination of which function of the heart muscle is at fault.

Drugs that most favorably influence dis-

orders of the myocardium are included in the digitalis group. In this series are digitalis, strophanthus, squills, convalaria and apocynum. All have a similar action on the heart, but that digitalis is the most dependable, there is no question of doubt.

DIGITALIS.

In 1785 Withering made the observation that digitalis had a good effect in some cases of heart failure, and for over a hundred years digitalis was used by physicians with little accurate knowledge of its action. The mistake was made in assuming that the physiological action and toxic effects in animals were the same as in man, but in about 1900 Mackenzie made the important discovery by the study of patients at the bedside, that digitalis may act altogether differently on a diseased than on a normal heart. In fact, the effect of digitalis on a man with a normal circulatory apparatus is not exactly the same as on animals; for instance, in animals the blood pressure may be raised, while in man, on account of the stability of the vasomotor apparatus, the blood pressure is but little if at all affected.

All the properties of the heart muscle are affected by digitalis; tonicity and irritability are increased, it lessens conductivity, depresses contractility and markedly lessens the arrhythmia in auricular fibrillation. If the diagnosis is made as to which function of the heart muscle is at fault, the results of digitalis therapy can be anticipated and its limitations recognized. I know of no form of heart failure for which digitalis is contraindicated, although in some conditions large doses should be used with caution. For instance, incomplete heart block may be converted into complete block, extrasystoles may be aggravated on account of the increased irritability, and contractility may be further depressed when pulsus alternans is present. However, the danger in these conditions cannot be great if Mackenzie can say that he has never seen a death due to digitalis. That digitalis is free from harm when given by Mackenzie, is possibly true, but that many people have been killed by unskilled administration, is equally true, yet the fatalities due to overdosage are infinitely less than the number that have died because they did not get it at all or because the dosage was too small.

The chief indication for the use of digitalis is a loss of tonicity and the disturbance of rhythm due to fibrillation of the auricles. The only real advance made in the treatment of heart disease was Mackenzie's discovery that the action of digitalis on a heart with a normal rhythm is altogether different from its action when the heart is completely irregular in auricular fibrillation. When the rhythm is normal the rate is little if at all influenced, seldom lessened more than ten or fifteen beats per minute, while in fibrillation its influence on rate denotes a specific action which justifies pushing the digitalis until an approximately normal rate is obtained.

In the selection of a preparation, it is best to limit one's attention to one or two preparations to the exclusion of all others. In my practice I seldom use anything but the tincture. I find no indication for such preparation as "digitol," "fat free tinctures," and find little use for digalen or the high priced digipuratum tablets. Most pharmacologists agree that the gastric disturbances of digitalis are of central origin, and clinical experience indicates that this is true. There is no reason why a patient that can take any heart remedy by the mouth cannot take tincture of digitalis. Mackenzie uses only the tincture and says when it fails he has never seen results from any other preparation. The dose of the tincture is about one drachm a day, although much larger doses may be given. The amount of digitalis given has to be gauged by the results. The variability in the time and the way digitalis affects the heart, depending upon the function of the heart muscle that is at fault as well as upon the patient's susceptibility, is probably the explanation of the former custom of changing after a few days use from one preparation to another and even to a less efficient drug. I have repeatedly given two patients of the same age with iden-

tically the same kind of heart trouble—mitral stenosis with fibrillation—the same amount of digitalis a day out of the same bottle, and one would respond in five days with a marked slowing of the pulse, while the other would not show the effects for two weeks. It is important to bear in mind that a drop is not necessarily the same as a minim. I have frequently seen patients who thought they were taking twenty minims, but with the dropper used, twenty drops made ten minims.

In recognizing the signs of the physiological action of digitalis, it must be remembered that these are not the same when the heart is fibrillating as when the rhythm is normal. In fibrillation the symptoms are slowing of the pulse and lessening of the irregularity, gastric disturbance and headache, and these symptoms practically always occur in the order named, while in cases with a normal rhythm the order of occurrance is usually gastric disturbance, slight or no slowing of the pulse, the appearance of irregularities and headache. The commonest irregularity due to digitalis is extrasystole, which may occur a dozen or more times a minute, and occasionally after every normal beat, causing the so-called coupled rhythm. When extrasystoles appear while a patient is taking digitalis, it should be stopped. Over dosage or too long continued use may, from over-stimulation of the vagus, cause a phasic irregularity, characterized by six or eight beats in quick succession occurring four or five times a minute. A dropped beat from incomplete heart block is rare, but may occur in patients with rheumatic hearts, especially in children. An increased rate due to digitalis does not occur.

I find no use for the glucosides of digitalis. If gastric disturbances prohibit digitalis by mouth, or the urgency of the case justifies hypodermic medication, the remedy to use is stropnanthin intravenously. Sterile water will do just as much good as digitalin in 1/100 grain doses. In a private communication from Merck's a few years ago, they stated that pharmacological investigations had convinced them that digitalin in doses less thon one-sixth grain had no effect on the heart, hence, the Merck's tablets of one-tenth to one-half grain, and the only positive effect in doses of this size when given subcutaneously is an inflammatory swelling or an abscess. Digalen given subcutaneously is unreliable, and intravenously is much slower in action and decidedly inferior to strophanthin.

STROPHANTHUS.

The action of strophanthus is the same as that of digitalis, when it acts at all. Some cases may show no effect from the tincture of strophanthus and respond in a specific manner to the tincture of digitalis. This may be explained by the observation of Cushny, who showed that the tincture of strophanthus when dissolved in water is inert.

Strophanthin, the active principle of strophanthus, is in my experience the best drug to use when hypodermic medication is indicated. It must never be given subcutaneously, as it is very irritating and sometimes causes an abscess. If given in the vein there is absolutely no pain and its administration is quite simple. The only reliable preparation I have found is Burroughs & Welcome's tablets of 1/500 grain each. I have been unable to obtain results with Lilly's tablets, and have seen some bad effects from Parke-Davis's strophanthone. Oubain is Hynson & Westcott's name for strophanthin put up in ampoules. I have found it inferior to strophanthin. My preference is always for a drug that is sold by its right name, especially when it is better and cheaper.

The average dose of strophanthin is 1/100 grain, which usually does not have to be repeated before twenty-four hours, sometimes two doses a week are sufficient. The chief indication for its use is in urgent cases where it may not be safe to wait four or five days for the effect of digitalis. I have given it hundreds of times and never with any bad effects. I am convinced that it has the same action as digitalis, and if there is any difference strophanthin is the better of the two. I know of no

better example of the specific action of a drug than the relief of dyspnoea and the marked lessening of the pulse rate in less than one hour following the intravenous administration of strophanthin in patients with fibrillation.

Squills, convalaria and apocynum, other members of the digitalis group, all have an action on the heart similar to digitalis, but are much less efficient, therefore there is no justification for using them.

Next to tincture of digitalis and strophanthin, I have found morphine the most reliable remedy. In fact, these three drugs used intelligently are all that one needs in most cases of heart failure. Morphine at times may be a life-saving remedy by relieving pain, lessening nervous irritability and inducing sleep so that an exhausted heart muscle may regain its lost tone. It also has a tendency to slow the heart rate by stimulation of the vagus center.

CAFFEIN.

The only justification for using caffein is that animal experimentation shows that it causes increased irritability of the ventricles. Its action in increasing irritability is also shown by the occasional irregularity sometimes seen in coffee drinkers. Experiments indicate that it increases the total blood flow, and this may occur without a corresponding rise in pulse rate, but there is little, if any, clinical evidence of its value. It is the drug usually given when there is doubt about the indication for a heart remedy. If there is need of a drug to increase the efficiency of the heart, it is better to give one of known merit such as tincture of digitalis or strophanthin.

Atropine is of limited value. It may relieve a reflex heart block, and by paralyzing the vagus cause the bradycardia and irregularity of digitalis intoxication to disappear.

There is no conclusive proof that such drugs as camphor, strychnine or alcohol have any favorable effect on the myocardium. The symptoms of poisonous doses are all referable to the nervous system, so the effect, if any, in heart failure must be an indirect one.

Adrenalin increases all of the properties of the myocardium, notably irritability. I have found it of no value in improving impaired contractility. Used in association with anaethesia it has been found to produce death by causing ventricular fibrillation.

When there is evidence of lessened efficiency of any property of the heart muscle in acute infectious diseases, there is no reason why the treatment should be any different than in non-infectious cases. Recent clinical observations and animal experimentation show that the action of digitalis and strophanthin is precisely the same in the presence of fever as when the temperature is normal. Studies with the electrocardiograph indicate that the statement made by many good clinical observers that digitalis does not act when the "heart is in the grip of some poison" is probably not true. The discouraging results of digitalis therapy in most of the so-called cases of heart failure in infectious diseases is significant, because it is seldom in such cases that one finds evidence of failure of any of the special functions of the heart muscle. Failure of the vasomotor center may account for the symptoms in some patients, but certainly not in all. As an explanation for the symptoms in many of these patients with apparently cardio-vascular failure, Goodridge suggests the disturbed function of an "undiscovered third something, operating outside the heart and vaso-motor centers, though more or less intimately associated with them, which controls the flow of blood."

To summarize, I can only repeat that to properly treat a failing heart, the particular function at fault must be determined and the medication used intelligently in reference to it.

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Secretaries of county societies desiring to take advantage of the Lecture Bureau are requested to communicate with this office as soon as possible.

Relation of Gallstones to Cancer of the Gallbladder.

L. F. BARNEY, M.D., Kansas City.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

The selection of this subject was a result of the author's misfortune to fall heir to a number of cases of those unfortunate patients in which the presenting and chief symptomatology was painless jaundice and as the termination in all of these cases was slow death and as all of them were entirely preventable, it brought up the questions: How often are we as medical men responsible for these conditions? Are we doing our full duty when we allow these conditions to result?

It seems to be pretty well established that one of the most potent causes of carcinoma is a chronic irritation and in each of these cases that irritation was the result of gallstones. Had those gallstones been removed earlier none of those cases would have died of carcinoma of the gallbladder.

As to the relation of gallstones and cancer of the gallbladder, Mayo[1] lays down the following:

First, that gallstones are almost always present in primary cancer of the gallbladder and not in secondary metastasis.

Second, the relative disproportion of malignant disease of the gallbladder and gallstone disease in men and in women is almost identical.

Third, the pathological lesions actually found are best explained on the irritation theory.

Siegert states that in 95 per cent of all cases of primary cancer of the gallbladder gallstones are present, while Beadle in the London Cancer Hospital and Musser found them present in 100 per cent of all cases of primary cancer of the gallbladder. Also about 75 per cent of the gallstones are found in women and 25 per cent in men and the relative proportion of primary cancer of the gallbladder is the same.

The number of cases of this incurable disease is not negligible for Mayo[1] states that from 4 per cent to 5 per cent of all gallbladder cases that come to operation have cancer, while Shroeder says that 15 per cent of the patients with gallstone disease eventually die of cancer, and Sherril puts it at 14 per cent.

In regard to the mortality of gallstone operations Dean Bevan[2] puts it at 1 per cent for cholecystostomy and 2 per cent for cholecystectomy. Mayo's figures are a little less. The mortality of carcinoma of the gall bladder is 100 per cent except those cases where the diagnosis is accidentally discovered when sections have been made where cholecystectomy has been performed for another cause.

In spite of the above facts, we still have men who insist upon treating gallstones medicinally, or rather expectantly, for it is generally conceded that there is no such thing as dissolving gallstones or curing them in vivo. They seem to be satisfied with attempting to lessen the frequency of the attacks over which they have but little control, and then when the patient dies of cancer, peritonitis, perforation, intestinal obstruction, or some of the other conditions we have all seen, they have to console themselves by saying, "I did all I could without submitting my patient to one of those dreadful operations," which I must say here if taken before complications arise is hardly more dangerous than an attack of hepatic colic, neither is it more painful. Also after recovery from the operation one can generally assure the patient that his troubles from that source are gone never to return, while after the recovery from the expectant treatment he can generally assure his patient that his troubles are gone to return again with a strong probability of being more painful and gravid than before.

Just the other day a well known internist of repute said to us that he rarely had a patient operated except for the removal of tonsils and the treatment of his teeth. These same men do have patients operated upon for gall bladder disease, but not until complications have arisen which not only makes the surgical mortality higher but also lessens the chances of complete

cure. From one of those authors[3] who advocates medical treatment of gallstones, I quote "Early operative interference is safe; it is sure; it prevents secondary and often pernicious complications." In this connection Frank Billings[4] says "Gallstone disease must be recognized as a surgical disease. The danger of cholangitis, hepatic abscess, perigastric adhesions, pancreatitis, etc., occurring as a result of gallstones is so great that even the most conservative physician may well hesitate to take the responsibility of non-surgical treatment."

Here I would like to report briefly three cases. Case No. 1, C. S., chief of fire department, age about fifty. Was seen at his home, his chief complaint being weakness, loss of weight, itching and discoloration of the skin.

Previous history was negative except that he had had considerable indigestion.

His present trouble began about three months ago with jaundice. This gradually increased and along with it there was loss of appetite and loss of strength.

Physical examination revealed a well built emaciated man whose color was a dark green. Pulse rapid and weak. Temperature subnormal. The abdomen distended and there was tenderness in the region of the liver. Two days later autopsy showed carcinoma of the gallbladder, and the gallbladder filled with stones varying in size from a pinhead to a pea.

Case No. 2, Mrs. F., widow, age seventy, was seen in August, 1915, when she had been sick one week. Began with pain in the right hypochondriac region and vomiting, followed by diarrhea. There were some chills and she had fever.

Physical examination showed marked prostration, great tenderness and rigidity in the region of the gallbladder, and the abdomen distended. As she gave a history of having had "indigestion" for over thirty-five years, the distress coming on immediately after eating and especially after partaking of eggs, cabbage, and several other foods she named, and also described having had frequent attacks of hepatic colic, frequently coming on in the middle of the night, a diagnosis of peritonitis as a result of gallstones was made and she was sent to St. Margaret's Hospital for operation. The gallbladder was completely buried by adhesions and was found with great difficulty. It was filled with pus and gallstones. The patient's condition would not admit of cholecystectomy and we had to content ourselves with drainage. She soon rallied from the shock and up to a certain point made a satisfactory convalescence. Before she left the hospital she had a good appetite and was especially enjoying eggs and cabbage and the other foods which she had had to forego for years. She went home twenty-four days after the operation, there still being some drain of bile which kept up for about four weeks more. In December she developed a bronchitis which lasted the most of the month. It was a typical cold, beginning with coryza and a tight tickling cough. After this she was fairly well until the following April, when a soreness in the region of the operation site developed. April 25 we were called and found an abscess in the old scar. An incision under local anesthesia was made and a pint of pus having the colon bacillus odor was evacuated. The drainage continued more or less and she became weaker. In July, while we were away on our vacation, she became deeply jaundiced and Dr. Krueger had her returned to the hospital. He did an exploratory operation July 26, finding a carcinoma of the gallbladder. The jaundice increased, her appetite completely disappeared and she became weaker and weaker and died August 20, 1916.

Case No. 3, Mrs. J. F., age 43, widow, entered St. Margaret's Hospital December 19, 1916, complaining of weakness and jaundice. Family history negative.

Her story was that she had been well until the first part of August, 1916, when she noticed that she could not walk fast on account of a pressing pain in the region of the liver. About the first of September she became drowsy and had no ambition. Said she could not get enough sleep. Two

weeks later she noticed that her eyes became yellow, and a little later her skin was discolored. The jaundice gradually increased, she lost her appetite and wanted to sleep all of the time. At the time she entered the hospital all she complained of was loss of appetite, weakness, drowsiness, and jaundice. She had a large ventral hernia, a result of an operation performed by the writer for gangrenous appendicitis, March 5, 1916, from which operation recovery was uneventful. Said that she never has had indigestion, but always had a "good stomach," but as a girl was always subject to "cramp colic" which she would have as frequently as twice a month. The cramps would come on at any time of day and would frequently awaken her at night. She never called a doctor to get relief, but says that they were so severe that anyone else would have. As she expressed it, "the pains would start in the pit of her stomach and shut her wind off." They would go through to her back but never radiate toward her shoulder. She never became jaundiced following the attacks. During the past year she had not had an attack. Aside from these attacks her general health had been good. She had had typhoid twenty-five years ago, malaria twenty years ago, pneumonia eight years ago, and the one attack of appendicitis a year and a half ago.

Physical examination was negative except the jaundice and slight tenderness in the region of the gallbladder. Liver edge was not palpable.

January 30, 1917, an upper right rectus incision was made. The gallbladder, which was hard and nodular, was found buried in a mass of adhesions. Within the gallbladder was a necrotic light-colored semifluid material and four gallstones, the size of hazel nuts, one being so impacted in the cystic duct that it was dislodged with considerable difficulty. On the inner side of the gallbladder near the fundus was a small carcinomatous mass about the size of a hazel nut and on the outer side was another mass somewhat larger which extended into the liver. As it seemed impossible to completely remove these growths, the gallbladder was drained.

For a time it looked as though the jaundice was going to clear up and the patient improve, but soon her color became dark green, she had absolutely no appetite whatever, and she became weaker and weaker and died February 22, 1917.

Autopsy showed the liver, which at the time of the operation was normal in size, more than twice as large as normal, and thickly studded with small carcinomatous areas. Both lungs were likewise involved throughout with smaller areas about the size of grains of corn.

All three of these cases were preventable and had their gallstones been removed they would never have died of cancer of the gallbladder.

The last case also brings out another point. That is whenever a laparotomy is made, when it can be done without increasing the danger, palpate the gallbladder to make sure that there are no gallstones, even though there is not the slightest suggestion of them in the history. It is our rule in all laparotomies for clean cases, prior to examining the diagnosed lesion, to palpate the other abdominal organs, and quite frequently unsuspected lesions will be found that are important to know. Had the appendix at the operation a year and a half prior to her death been clean, we would have palpated the gallbladder and found and removed the stones and she would not have died of cancer of the gallbladder. As it is I will have to content myself with the thought that I could not help it because I did not know that they were there.

BIBLIOGRAPHY.

1. Mayo—Keen's Surgery, Volume 3.
2. Dean Bevan—Surgical Clinics of Chicago, Volume 22.
3. Henry Walt Bettman—Forsheimer's Therapeutics.
4. Frank Billings—Modern Clinical Medicine, Diseases of Digestive Tract, 1906.

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Will members of the Society who have joined the Reserve Corps or other branches of the army service, kindly send us their present addresses?

The Private Hospital as an Investment.

T. A. JONES, M.D., Hutchinson, Kansas.

Read before Kansas State Hospital Association.

Let us take for example a twenty-bed brick hospital equipped on a scale to meet the requirements in the average Kansas town. We will estimate the total cost at $1,000 a bed, that is $20,000 for the equipment and building including site.

The interest on this principal at 6 per cent is $1,200 per year, and the taxes we will estimate at $300. This makes $1,500, and we will add $1,000 for repairs and keeping the equipment up to date. This twenty-bed hospital then must net above running expenses $2,500 per year to come out whole.

Sometimes the hospital will be full and sometimes it will have only a patient or two, so a fairly prosperous business will average ten full beds. This for the fifty-two weeks will make in round numbers 500 weekly fees which the hospital should get in a year.

Excluding the fees for major operations but including all other fees such as minor operations, obstetrics, and fees for special examination and medication, each full bed may be made to average $25 per week. At the present price of supplies it will cost on an average $20 per week for each patient, leaving $5 profit. This for the 500 weeks will make $2,500—enough to cover the taxes, repairs and interest on investment.

The fees for major operations were left out of this estimate on purpose, because they will represent approximately the profit on the hospital. Now in the ordinary small hospital each full bed will come near averaging one major operation every five weeks. This will make 100 operations in a year, and if we estimate the average fee at $100, the year's profit on the hospital will amount to $10,000.

But especially in the beginning the doctor will need an assistant in his operations. For this item he will pay one-fourth of his profit, leaving him above all expenses $7,500.

We arrive finally then at an estimate of $7,500 as the net profit on a twenty-bed hospital at the present costs and fees in Kansas. Of course there will be individual variations, but I believe this will approximate the average.

These figures do not look bad on paper—in fact it is doubtful if the grocery business or the hardware business would look any better. We are aware, however, that these figures are not borne out in practice. A hospital is a notoriously bad investment. It often becomes bankrupt or runs at the expense of the owner's outside practice.

The reason for this is not ordinarily lack of patients, but because the hospital is filled with a class of patients that can not or at least do not pay.

I want to make some suggestions for making a hospital a good investment and to lead up to this matter I will mention some of the requirements for a successful private hospital.

First, we may think of the local demand for a hospital and the size of the practice the doctor has in the beginning. These factors do have influence, but for a short time only. Unless the town is exceedingly small or the country tributary to it very limited, its success will depend on a single feature—the quality of its work. Hospital treatment is much more efficient than treatment in the home. Kansas people are progressive and not slow to recognize this advantage. They will soon get the hospital habit and the local hospital will create its own demand.

The important element, the quality of the work, depends so much on the personality of the proprietor that I want to discuss especially his qualifications.

These qualifications may be mentioned under three heads: The doctor must have professional ability; he must be honest; he must be a good business man.

Professional ability in this instance comprehends a great deal.

The doctor must know how to build a hospital. It must be planned to run with convenience and economy.

He must know how to equip it. The furniture and instruments must be adapted

to the sort of patients the hospital is to get.

He must know how to select a good nurse for superintendent and how to control her when he gets her.

He must be a man of clinical experience. The recent graduate, however well educated, will seldom have the proper judgment.

The doctor must have a fair knowledge of laboratory technique and be in every way a well-rounded diagnostician. This is most important of all. People do not expect a doctor to develop into a skillful surgeon over night while his hospital is building, but they do expect consistent management of a case throughout. Now the doctor's diagnoses are to be subjected to the acid test. The confidence of the public, especially that part of the public worth while, is going to depend more on the harmony of the doctor's story before and after the operation than any other feature.

The doctor must have a correct knowledge of surgical technique and anatomy so as to finish with moderate success at least the operations forced upon him in the beginning.

He must have surgical judgment and not undertake an operation that is too much for him. If he needs a surgical consultant the confession comes better before the operation than after.

Honesty means both professional and business honesty. The doctor must be too honest to keep a case long without knowing the cause of the trouble. He must be too honest to advise operation because he wants experience or the patient is willing. At the present time honesty requires that a surgeon dissuade half the patients that come to him asking for an operation. It might seem that from a purely business standpoint it would pay to cut out a healthy appendix or repair an untorn perinæum. In a single case this might be true, but a dishonest policy will not get by long. The surgeon who advises operation in every case will not always get the job. Then the patient who was told he would die without surgery will exhibit himself to the community as a living refutation, while the one who was honestly turned away will bring more patronage than a number of successful operations.

The doctor must of course be too honest to do an avoidable abortion or the more sweeping but morally identical sterilizing work. Years ago I gave an anesthetic for a pillar in the church to remove an ectopic gestation. Afterward I learned from the husband that the operation had extended to the other tube. Recently a consultant was offended at not getting help to sterilize a healthy young married woman. Neither of these men has the confidence of the community.

Business honesty means uniform bills. The hospital must not charge a bigger fee because the patient is grateful and willing to pay. He may later make a cold-blooded comparison of his bill with others.

Also the hospital must be prompt and exact in the payment of all accounts.

Business ability is the ability which the successful merchant has. The doctor must buy for cash at the lowest prices. He must master every detail of economy in the basement, kitchen, ward, and operating room.

Besides being a professional man, the hospital doctor must be a business man too. He is undertaking a great business obligation. The only way to meet it is by strict business methods.

The duties of the hospital doctor are many and we come naturally to the suggestion that they should not be undertaken by a single man. A hospital should have team work, there is no doubt about this, but how are we to reconcile the team? No co-operative plan has been worked out that succeeds in many cases. The reason for this is not far to seek. The doctors in a small town have had their jealousy stimulated for years by prejudiced friends. Each man is honestly convinced that the others have wronged him. In outside practice they come in contact only occasionally; in the hospital the association is more intimate and the jealousy is intensified. If the superintendent happens to be

impartial the doctors will not believe it.

The fact that the co-operation is of great professional and business help is no argument. The jealous doctor never stops to think. I once offered a bonded guarantee to double a successful practitioner's net income if he would work in partnership with me in a hospital. He refused because I had repeatedly injured him. All these injuries had been inflicted in spite of my most conscientious efforts.

Partnerships between a local practitioner and a visiting surgeon seem well planned but are usually temporary. The local man suspects that the surgeon is weaning away his patients or decides that he may as well do the surgery himself.

There is I take it no plant in all the garden of human sentiment so hardy as surgical ambition. It springs up in the most unaccountable situations and grows on the barrenest soil. Cultivation is not needed for its maturity. I know practitioners who have not seen the inside of a clinical amphitheater for many years, who cannot make the simplest urine examination in the laboratory and whose inkling of surgical technique has been gotten from occasional contact with a half-trained nurse. Still these men will take offense at not being accounted surgeons and withdraw from a helpful association because the operation room is not placed at their disposal.

Usually a hospital must be managed by one man. His position is difficult. I hope there may be some help for him in the following brief suggestions:

Before making up his mind to build a hospital the doctor should examine himself. Has he a sound fundamental training and does he bring this training into action in every-day work? Does he depend on the intrinsic value of his services or on his knowledge of human nature and his friends to cover up his errors? Mistakes will out in a hospital, and one's most trusted henchmen will sometimes desert him.

Has the doctor a head for business?

Having made his decision, he should begin to specialize years beforehand. He should study hospital construction in the technical magazines and by visiting all the institutions within his reach. From all these he should adapt a plan for his own special needs and sketch it again and again. He should study hospital equipment in the catalogs and other hospitals. The difficulty is to keep from buying too much. A good lesson is to ask an experienced surgeon to point out in his cabinet the instruments he uses most. There will often remain an expensive collection which the surgeon does not use at all. The investigation should extend further to the discarded electrical apparatus in the store room.

He must in the beginning take a post graduate course not six weeks but a year at the least. He must condescend to begin at the laboratories. Surgical technique must be mastered and a few of the common emergency operations. It is unfortunate that the hardest surgery comes first, but the man who does these well will find it easy to broaden his field.

The doctor should in all cases decide on the course that gives the patient the best chance and never allow his own ambitions or interests to alter it. This principle is most trying in calling consultation. He must not take offense if the patient asks for help. People have known him as a general practitioner and will give him their confidence in surgery only as he earns it in emergencies.

The doctor who is competent and honest will fill his hospital, but he cannot succeed without business. His hospital must be a good investment. The business with a deficit cannot run.

The hospital must collect.

When a patient enters the hospital, if he is known to be responsible all that is necessary is to take the first opportunity to state the amount of the bill.

If he is a stranger, his financial status must be ascertained at once. If there is any doubt, he should be respectfully asked to pay in advance. If there is no money, the responsible member of the family

should be introduced to a local banker who takes security for the hospital just as he would for the bank. No exception should be made for the man who for some reason never gives a mortgage but will pay next week. He often has the same reason for not paying at all.

There is another who should give a plain note. This is the man who is known to pay, but contests the amount of the bill. A note will prevent his squeezing a discount out of the hospital.

The bill of the pauper patient should be guaranteed by the township trustee.

Of course this policy will deprive the hospital of a lot of patronage, but it is precisely the patronage that will ruin it.

Rigid collections will make a good impression on reliable people. The deadbeat will learn to conform to the hospital customs or stay away. The pauper will be supported by the county in the hospital just at other times, and no one will be wronged by this policy.

Three things then must enter into the makeup of the successful hospital doctor: ability, honesty, and business.

We are very proud of the first two and fond of talking about them, but the third is also essential. It is necessary for the exercise of the others. The insolvent doctor cannot buy books or take post graduate courses. The excuse of the quack and abortionist is poverty.

The hypereminent gentleman who pampers his vanity by ignoring collections is not a good citizen in the profession. On account of large volume of business he may be able to do it, but he is making life impossible for his less fortunate brethren.

There may be such a profound scientific preoccupation as to forget collections, or such a high-minded professional pride as to despise them, but in most cases, gentlemen, the motive is more human than this. It is common every-day professional jealousy. The doctor who does not collect is afraid to. He may offend the family and they will go to the other doctor next time. Lax business is one of the most reprehensible and ruinous forms of advertising.

My reason for presenting this matter to the society is to recommend strict banking methods in our hospitals. If we will all collect, we will all prosper, and we can prepare ourselves for efficient honest practice.

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Carrel's Method.

W. O'N. Sherman, Pittsburgh (Journal A. M. A., July 21, 1917), gives a history and description of the method used by Dr. Alexis Carrel for the prevention or abortion of infection. The description of the method, which he says has been met with skepticism and neglect in many quarters, largely by others than American surgeons, is detailed. Credit is also due to Daufresne for the latest and most successful modification of the solution used, to which, however, Dakin's name is the only one usually applied. In order thoroughly to master the method Sherman thinks one should spend at least three weeks observing the treatment. He also gives some space to the use of the method in wounds other than those of war. He has had excellent opportunities to study the various methods of wound treatment used in the base hospitals. Practically every wound seen by him, except those treated by Carrel's method, was infected. Many of the wounded men were sent to their homes with existing latent infection present. Carrel's method he says is a proved specific and all military and civil surgeons and nurses should receive three or four weeks' instruction in its use.

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Meningococcus Carriers.

C. Krumwiede, Jr., New York (Journal A. M. A., August 4, 1917), describes the method of applying the microscopic slide agglutination in the search for meningococcus carriers. Besides the application in identification, he says possibly the slide agglutination may find its use as a simple method of testing the serum employed in treating a case against the same strain. This could be done within eighteen to twenty-four hours of seeing the case, and might be useful as a check on the therapeutic action of the serum, and might also give an easy method of determining the incidence of strains acted on by the serum, thus aligning them with a standard strain used in immunizing the horses. Should the strain not be influenced it might then with further experience indicate the advisability of obtaining other serums to select one showing such activity if procurable.

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

ASSOCIATE EDITORS — C. W. REYNOLDS, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, J. J. BROWNLEE, E. S. EDGERTON, K. P. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, E. M. CARTER.

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Biased Opinions.

We were once told of a prominent lawyer in a large city, whose business was very largely in divorce suits, and who became so impressed with the instability of matrimonial ties that he took to wife the ugliest negress he could find in order that he might have a home safe from invasion by other men.

Men who are too constantly and too long confined to the atmosphere of their own activities seem to acquire a limited perspective. Medical men are prone to look for a pathologic factor in the mental and moral obliquities of the race, and men of great legal acumen are sometimes inclined to form their concepts of humanity in accordance with the ethical standards of those with whom they have had most to do.

Perhaps it is because of its well known traditional code of ethics, so long and religiously observed, that the people have become alarmed at the possibility of a moral degeneration in the medical profession and have legislated for the safeguarding of its integrity. Just as the minister is subject to censure for slight breaches of etiquette which would be passed unnoticed in other men, so members of the medical profession are expected to observe a higher code of morals than the average man and his lapses are magnified into serious offenses against the commonwealth. The most painstaking and unselfish efforts of medical men to save human life are often attributed to ambition and greed by laymen.

A prominent jurist in a western state, in an address before a medical society, said:

"The serious responsibility of advising a surgical operation should never, in my judgment, be assumed by any man who would perform or in any manner profit by the operation, and that whenever you are consulted as to the necessity or propriety of an operation, you should be debarred from performing or profiting by it by the ethics of your employment.

"Every operation which results in the death of the patient from the operation is a homicide, both as a matter of law and as a matter of morals. It is no excuse either in law or in morals to say the patient would not have long survived. That could be said with truth of every patient and of every human. None of us can long survive, yet not only the law but good morals fixes the responsibility for homicide upon the proximate cause of the death, and I am persuaded that the surgeon and his innate desire to cut is the proximate cause of many a death.

"I therefore urge that you make it one of the articles of your religion never to perform or assist in the performance of or profit by an operation about the advisability of which you have been consulted."

One questions the weight of an opinion which suggests the shifting of all responsibility for an operation from the operator to one who has no interest in the outcome. If this advice were followed there would be fewer minor operations, perhaps, and fewer major operations in which the life of the patient was not in jeopardy, but there would certainly be more fatalities in the surgical wards.

The reputation of a surgeon depends largely upon the success of his work, and no surgeon, no matter how ambitious he may be, will readily undertake an opera-

tion the outcome of which is doubtful. An ambitious surgeon would rarely risk his reputation by attempting an operation in which the chances for success were overshadowed by the prospect of the patient's death on the table. It is the conscientious, unselfish surgeon, who is willing to risk his reputation, who is even willing to be accused of homicide by our learned jurist, if in operating a doubtful case he may give his patient an only slight but possible chance of life.

What would the uninterested surgeon advise? Since his reputation as an operator would not be at stake and since he would be concerned only with the diagnosis and the possibilities of surgery, it is reasonable to presume that a great many inoperable cases would go to the table and the mortality of the operator be largely increased.

It is impossible, however, for the operator to shift his responsibility to someone else. No matter what the opinions of his consultants and assistants may be, he is held responsible by the patient and his friends, and he must determine for himself the need for operation, the time for operation and the method of operating.

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Should Prescription Files Be Open for Inspection?

One of our readers asks if a druggist, who permits his prescription files to be inspected by any of his customers who happen behind his prescription case, is entitled to the patronage of physicians. There is but one answer to this. Such a druggist deserves the patronage of neither physicians nor their patients. Any physician who feels that he is enjoying a special privilege in being permitted to look over the files of his druggist may be assured that others are, or will be, granted the same privilege and his prescriptions be open to similar inspection.

In the first place the druggist's prescription case is his private sanctum which should not be invaded by any of his patrons. The physician who makes himself at home there is tolerated because of the importance of his patronage, not because he is really welcome there. A doctor has no more right behind a druggist's case than the druggist has in the private room of the doctor's office when he is examining a patient.

A physician is sometimes permitted to look at one of his own prescriptions in the file and in doing so may read a number of other prescriptions, but one who would take advantage of information so gained is unworthy of professional recognition. Our correspondent says: "Many a physician has lost the patronage of a family because another physician has seen a prescription on file with name on same." No doubt this is true and we would like to suggest that the name of the patient need not appear on the prescription, especially prescriptions for specific diseases, except when required by the regulations governing the dispensing of narcotic drugs.

Some of our courts have decided that the title to the original prescription lies with the druggist who fills it, but that the customer may demand a copy of the same.

The constant refilling of prescriptions is one of the evils of which we have a right to complain. In many cases the prescription is given for temporary use only, but in any case it would be much better if the physician could have the right to determine the advisability of refilling. It is a very wise plan to stamp all one's prescriptions, "Not to Be Refilled." This admonition is not observed by all druggists, but if it is refilled against such an order and harm results, the physician is relieved ol the responsibility.

Druggists of ordinary business sense are not likely to willingly or knowingly infringe upon the rights of physicians in their community, especially those who do no dispensing. We suggest that the annoying conditions complained of by our correspondent can be more easily avoided by a frank and friendly conference with the druggists than by any kind of legislation, of which we have already too much.

Good Roads.

Most every one travels a little these days, some on trains, some in automobiles and a few in wagons and buggies. Even most of those who travel on trains are interested in good roads, but of all people who want good roads, permanent good roads, roads that are good all the year round, the doctor wants them more than anyone. He should be interested, not only in getting good roads constructed, but he should use his influence in getting the right kind of roads.

Of all the disappointments in the matter of roads, the high crowned road and the old macadam are the most bitter. The former is not good to drive on in dry weather and is impossible in wet. It dries off quickly it is true, but the water running off makes crosscuts that are worse to drive over than a cobblestone pavement. This kind of road can be fixed by taking the crown off, but the old macadam which has been neglected gives one nystagmus trying to zigzag around the holes, and the ones he fails to miss jar the stones out of his gallbladder and tie knots in his intestines. There is no way to repair them except to build them over.

In spite of the general disturbance in public affairs caused by our preparations for war, considerable permanent road building is being projected in Kansas. Before the people along these routes spend much money on the construction of hard surfaced roads they should very carefully consider the matter of maintaining them. A few years ago several very excellent macadam roads were built into Kansas City from several points in Kansas. Today those roads are a disgrace to the State. Whether they could have been kept in a decent state of repair we are unable to say, but it is certain that they were not. If it is impossible to keep macadam roads in repair, no more of them should be built.

There is now a considerable amount of talk in favor of concrete roads. These are usually made in sections, with joints every fifteen or twenty feet. They are very fine when new, but after a few years begin to wear at the joints and in driving over them one gets a good jolt every fifteen or twenty feet as the case may be. Brick roads built on sand are a delusion, as a rule. Some five or six years ago several miles of brick road was built into one of the cities of Central Missouri. Today the travel is all on the dirt by the sides of this pavement, the pavement being very badly wrinkled and cut up. The more you try to repair this kind of pavement, the more uneven and rough it gets. Gravel roads are easier kept in repair than any other kind, and when made sufficiently wide and not too highly crowned, are as good as concrete or brick. It takes some time to get them into permanent condition, but then they are much more easily kept in condition. Of all the hard surfaced roads we have seen, that from Topeka to Rossville is, for its age, by far the best. It has been kept in repair and gets better and more permanent with age.

In other states one will find the same neglect of roads that have been built at great expense as in Kansas. There is a hard road from Galesburg to Chicago. The portion of this road nearer Galesburg is mostly new and in fine condition, but a hundred miles of it nearer Chicago is badly cut up and greatly in need of repair. The Lincoln Highway, once a great attraction for the motorist, is a "has-been," or at least that portion of it from Chicago to Sterling. This road was constructed with the State's aid, but at the present time is a poor recommendation of the economic foresight of that great commonwealth.

Alcohol as a Food.

In a paper recently issued by the British Government on "The Food Supply of the United Kingdom," the report of a committee consisting of some of the best known authorities, the following observations on the food value of alcohol were made:

"Accurate experiments have shown that alcohol, if taken in moderate doses—up to the amount contained, for example, in one quart of beer—is very completely burnt

in the body, the proportion which, under these circumstances, escapes unchanged, being, at the most, some 5 per cent. This combustion of necessity liberates energy in the body. Quantitative observations on the nutritional balances have shown, moreover, that, at any rate under the special conditions of experiment, this energy need not be lost as waste heat, but can be made to support the active functions of the body. This being so, a moderate quantity of alcohol may, if the conditions serve, actually take the place in nutrition of a dynamically equivalent quantity of fat or of sugar. Were it not possessed of other qualities the food value of alcohol would, therefore, be measured by its full caloric value. But, unlike foodstuffs more strictly defined, alcohol exerts effects as a drug which cannot be ignored in appraising its value as a food. These effects become more important when the individual is called upon to do strenuous work or to endure exposure.

"Against the experimental data mentioned above must be put the results observed in practice, and on large numbers of individuals, as to the effect of alcohol on the accomplishment of physical work. We may point, for instance, to the results exhibited by troops on the march. Repeated experience has shown that regiments not supplied with alcohol marched farther, and were in better condition at the end of the day, than others to which it had been given. Experiments in mountain climbing have given similar indications, the total work done being smaller under alcohol and the expenditure of energy greater. In particular the records of American industrial experience are significant in showing a better output when no alcohol is taken by the workmen.

"There is little need to decide as to how far these effects are purely physical or to what degree they are psychological. The facts show that the value of alcohol as a source of maintenance and of work-power for the nation cannot, as in the case of a normal foodstuff, be logically measured by its gross caloric value."

May Call Eye, Ear and Throat Surgeons Into Army Service.

The Council of National Defense authorizes the following:

Under the direction of the general medical board of the Council of National Defense, the subcommittees on otolaryngology and ophthalmology have sent out to practically every eye, ear, and throat surgeon in the country a questionnaire to learn the willingness of these surgeons to enter military medical service if a call were made for them. Both committees report that they will have a sufficient number of men to supply the needs of the Surgeon General.

With the idea in view that injuries to the head seldom involve one structure, the subcommittee on ophthalmology determined some weeks ago to join action with the subcommittee on otolaryngology for the purpose of devising the best means of bringing all head subjects under one section. To bring about this result, the executive committee added to the personnel of the subcommittee on otolaryngology an oral surgeon, and to the subcommittee on ophthalmology a brain surgeon.

These committees, acting as a joint body, have made an exhaustive study, and as a result recommended to the Surgeon General, through Maj. Leyster, the advisability of the establishment of sections on surgery of the head in the base hospitals. Maj. T. C. Lyster was assigned to make a thorough study of the whole situation.—Official Bulletin, July 31.

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Milk Supply Essential to the Nation.

Representatives of the various interests identified with the milk industry held a two days' session and conference with Food Administrator Hoover, under the auspices of the National Dairy Council, in Washington, June 25-26. There were present representatives of the organized producers, dairy breeding associations, distributors, butter and cheese makers, condenseries, ice cream, and other allied activities. Each of these interests patriotically pledged their whole-hearted support to the adop-

tion of measures looking to the conservation of dairy animals and the milk supply.

Reports were submitted indicating an alarming tendency in some sections toward the wholesale slaughter of dairy cows and calves—as high as 20 to 25 per cent of the visible supply. Farmers are apparently yielding to the temptation of high prices offered by the cattle buyers purchasing for slaughter. Increasing feed costs are no doubt responsible for this condition.

It was conceded that milk must not become a luxury, but must be kept within the reach of all if we are to raise our children of today to become the men and women of tomorrow. It was said that in all of Poland, with its millions of population, there is not a child under seven years of age, owing to the destruction of the milk supply.

As a result of the conference the united dairy industry offered the services, free of cost to the Government, of a qualified man to advise with the Food Administrator, which offer was promptly accepted by Mr. Hoover. Mr. Hoover urged the appointment of an advisory committee to assist in such an enormously important task. As a consequence, a committee of seven was named to represent producers, distributors, and manufacturers.

Sub-committees, representative of the entire country, will later be formed, and a plan of systematic procedure adopted at an early meeting of the committee. The efforts of the committee will be directed with great earnestness to the conservation of the milk supply by securing for the producer such relief, in the matter of cost, as will eliminate any justification for further slaughter of dairy cows, and which will encourage the increase in number of milk cattle.—Bulletin Dept. of Health, New York.

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Mortality from Tuberculosis.

The Bureau of the Census is planning to prepare and publish a monograph on the mortality from tuberculosis covering the calendar year 1918. To make this work of greater value an endeavor is being made to obtain the co-operation of all physicians to the extent of carefully recording or supervising the statements of occupations upon the death certificates during that year. Circular letters to this effect have been sent to all the physicians in the United States.

We call attention particularly to the following extracts from the circular letter:

"More accurate and definite statements of the occupations of decedents should be written upon death certificates. Until this is done mortality statistics by occupations will continue to be unsatisfactory.

"The Bureau of the Census is planning for the near future a monograph on tuberculosis. How much more valuable this monograph will be if it is possible to show accurately the occupations of decedents.

"As a physician you appreciate the importance of such statistics. As a physician you are by education better qualified than the ordinary informant to understand a proper statement of occupation.

"Will you not, therefore, take pains to see that the occupation items upon each one of your death certificates are properly supplied?"

———R———

Meeting of National Board of Medical Examiners.

The National Board of Medical Examiners held its second examination in Washington, D. C., June 13 to 21. There were twenty-four qualified candidates, twelve of whom appeared for examination, the others having been ordered into active duty between the time of their application and the date of the examination. Of the twelve who took the examination, nine passed.

The next examination will be held in Chicago, October 10 to 18. The regular corps of the army and navy may be entered by successful candidates, without further professional examination, providing they meet the adaptability and physical requirements.

There will also be an examination in New York City in the early part of December.

APPLICATION FOR APPOINTMENT IN THE MEDICAL RESERVE CORPS, U. S. ARMY.

....., ...

To the SURGEON GENERAL, U. S. Army,
Washington, D. C.

Sir: I hereby make application to be examined for appointment in the Medical Reserve Corps, U. S. Army, and inclose testimonials as to my character and habits.*

I certify that to the best of my knowledge and belief I am laboring under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required of me if appointed in the Medical Reserve Corps, U. S. Army, and that the answers given to the interrogatories below are true and correct in every respect.

I furthermore state my willingness to proceed to such point for examination as may be designated by the Surgeon General, with the understanding that the journey entailed thereby must be made at my own expense.

INTERROGATORIES.

1. What is your name in full?.....
(Including your full middle name)

2. What was the date of your birth?.....

3. Where were you born?.....
(Give state and city or county; if foreign born, give country.)

4. When and where were you naturalized?.....
(For applicants of alien birth only.)

5. Are you married or single?..... 6. Have you any minor children; if so, how many?.....

7. What is your height, in inches?..... 8. Your weight, in pounds?.....

9. Give the nature and dates of all serious sicknesses and injuries which you have suffered:

10. If either parent or brother or sister has died, state cause and age in each case:

11. Do you use intoxicating liquors or narcotics; if so, to what extent? .....

12. Have you found your health or habits to interfere with your success in civil life?.....

13. What academy, high school, college, or university have you attended? State periods of attendance from year to year, and whether you were graduated, giving date or dates of graduation:

14. Name any other educational advantages you have had, such as private tuition, foreign travel, etc.:

15. Give all literary or scientific degrees you have taken, if any, names of institutions granting them, and dates:

16. With what ancient or modern languages or branches of science are you acquainted?

*Testimonials as to character and habits from at least two reputable persons must accompany this application. Political recommendations are not necessary.

17. How many courses of lectures have you attended? Names of colleges and dates:

18. When and where were you graduated in medicine?

19. Have you been before a State examining board? If so, state when, where, and with what result.*

20. Are you a member of any State medical society? If so, give its name:

21. Have you had service in a hospital? If so, state where and in what capacity, giving inclusive dates of each kind of service:

22. What clinical experience have you had in dispensary or private practice?

23. Have you paid particular attention to any specialty in medicine; if so, what branch?

24. What opportunities for instruction or practice in operative surgery have you had?

25. Have you previously been an applicant for entry into the United States service? If so, state when, where, and with what result (if rejected state why):

26. Are you a member of the organized militia? If so, state with what organization and in what capacity:

27. Have you been in the military or naval service of the United States as cadet or otherwise? If so, give inclusive dates of service with each organization, designating it:

28. What occupation, if any, have you followed other than that of student or practitioner?

29. What is your present post office address?.....

30. What is your permanent residence?.....

(31) Signature of applicant).....

32. The correctness of all the statements made above was subscribed and sworn to by the applicant before me this .....day of....., 191.....

.....

.....

*This application must be accompanied by a certificate from the proper official that the applicant is duly registered to practice medicine in the State in which he resides.

Form 149

W. D., S. G. O.

(Revised May 3, 1917)

Application for Examination for Appointment in the Medical Reserve Corps, U. S. Army.

.....Inclosures.

Recipes for Killing Flies.

The United States Government makes the following suggestion for the destruction of house flies: Formaldehyde and sodium salicylate are the two best fly poisons. Both are superior to arsenic. They have their advantages for household use. They are not a poison to children; they are convenient to handle, their dilutions are simple and they attract the flies.

PREPARATION OF SOLUTIONS.

A formaldehyde solution of approximately the correct strength may be made by adding three teaspoonfuls of the concentrated formaldehyde solution, commercially known as formalin, to a pint of water. Similarly, the proper concentration of sodium salicylate may be obtained by dissolving three teaspoonfuls of the pure chemical (a powder) to a pint of water.

A container such as described below has been found convenient for automatically keeping the solution always available for flies to drink. An ordinary, thin-walled drinking glass is filled or partially filled with the solution. A saucer, or small plate, in which is placed a piece of white blotting paper cut the size of the dish, is put bottom up over the glass. The whole is then quickly inverted, a match placed under the edge of the glass, and the container is ready for use. As the solution dries out of the saucer the liquid seal at the edge of the glass is broken and more liquid flows into the lower receptacle. Thus the paper is always kept moist.

OTHER SIMPLE PREVENTIVES.

Any odor pleasing to man is offensive to the fly and vice versa, and will drive them away.

Take five cents' worth of oil of lavender, mix it with the same quantity of water, put it in a common glass atomizer and spray it around the rooms where flies are. In the dining room spray it lavishly even on the table linen. The odor is very disagreeable to flies but refreshing to most people.

Geranium, mignonette, heliotrope and white clover are offensive to flies. They especially dislike the odor of honeysuckle and hop blossoms.

According to a French scientist flies have intense hatred for the color blue. Rooms decorated in blue will help to keep out the flies.

Mix together one tablespoonful of cream, one of ground black pepper and one of brown sugar. This mixture is poisonous to flies. Put in a saucer, darken the room except one window and in that set the saucer.

To clear the house of flies, burn pyrethrum powder. This stupefies the flies, but they must be swept up and burned.

RECIPES FOR STABLES, BARNS AND OUT-OF-DOORS.

Borax is especially valuable around farms and out of doors. One pound of borax to twelve bushels of manure will be found desirable as a poison without injuring its manurial qualities or farm stock. Scatter the borax over the manure and sprinkle with water.

Lye, chloride of lime, or copperas (sulphate of iron) dissolved in water, crude carbolic acid, or any kind of disinfectant may be used in vaults.—The Merchants' Association of New York.

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Scabies.

Among the cases shown by Hartzell in a skin clinic at the University of Pennsylvania was an example of scabies. While scabies is a common condition it often goes unrecognized and still more often is imperfectly treated. Scabies and pediculosis are the only two itching diseases that may be "caught." Small family epidemics are of frequent occurrence.

Hartzell points out, in the International Clinics for June, that the diagnosis is to be made from the fact that the disease is contagious and that it shows a predelection for certain regions.

In very young children the palms and soles are often affected. In adults the sides of the fingers, the flexures of the wrists, the anterior axillary folds, the breasts in women and the shaft of the penis in men. An itching desire situated

in these regions is almost certain to be scabies. Close examination will show a few small, dotted, sinuous lines or burrows which are absolutely pathognomonic of scabies.

Ten or twelve per cent sulphuric ointment is an effective remedy but is too irritating for infants and young children. Hartzell recommends for the latter equal parts of styrax and olive oil, or one or two drams of balsam of Peru to the ounce of vaseline. Whichever remedy is employed it should be rubbed in from the neck to the end of the toes and fingers on three or four successive nights. This should be followed by a bath and then wait for three or four days to see whether the treatment has been successful and to avoid producing a dermatitis. If unsuccessful the treatment is repeated. All members of the family must be treated.

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Shawnee County Medical Society.

On July 23, 1917, the following petition was presented to the President of the Shawnee County Medical Society:

"We, the undersigned members of the Shawnee County Medical Society, request that the President of the County Medical Society call a special meeting of the Society to formulate some manner of protection of the practice of those physicians called to the medical service of the United States Government. (Signed)

C. F. MENNINGER,
W. S. LINDSAY,
W. M. MILLS,
G. H. ALLEN,
M. G. SLOO."

This special meeting was held Tuesday evening, July 24, at which time a motion was passed authorizing the President to appoint a committee of three members to devise such a plan and to report at a meeting to be held in one week's time. The President appointed the following committee: W. M. Mills, chairman; C. F. Menninger, E. G. Brown.

The adjourned meeting was held Tuesday evening, July 31, and the committee made the following report, which report was adopted and is now in force:

"That during the absence of any member of the Society in Government service the Society make monthly payments according to the following table:

	Lieut.	Capt.	Major
Single men, no dependents.....	0	0	0
Single men with dependents.. } Married men without children }	$25.00	$25.00	$25.00
Married men with children.....	50.00	40.00	25.00

"In case of death of a member in service the payments shall be continued during the duration of the war.

"That the members remaining at home be assessed $10 per month beginning August 1, 1917, this without penalty in case of failure to pay.

"That Dr. H. L. Clark be appointed custodian, collector and disburser of this fund, in consideration of which services his assessment shall be remitted."

E. G. BROWN, Secretary.

BOOKS.

The Treatment of Emergencies.

By Hubley R. Owens, M.D., Surgeon to the Philadelphia General Hospital; Assistant Surgeon to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Chief Surgeon to the Philadelphia Police and Fire Bureaus; Assistant Surgeon Medical Reserve Corps, U. S. Navy. 12-mo volume of 350 pages with 249 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $2 net.

In this book Dr. Owen has condensed a large amount of very essential material into a small space. He has included in his descriptive matter the care of fractures, contusions and wounds, hemorrhage, sprains and dislocations, burns and scalds, effects of heat and cold upon the tissues, asphyxiation, drowning, convulsions, unconsciousness, effects produced by lightning, foreign bodies, antiseptics, bandaging, transportation, poisons and their treatment, household remedies.

The Surgical Clinics of Chicago.

Volume I, Number 3 (June 1917). Octavo of 231 pages, 70 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published bimonthly. Price per year, paper, $10; cloth, $14.

A good many who were accustomed to receive the Murphy Clinics felt a keen disappointment when the necessity arose for its discontinuance, but those who have fol-

lowed the development of the Surgical Clinics of Chicago realize the fact that there is seldom anything so good but there can be something better. The Surgical Clinics has become a standard work, one which every surgeon must feel is an indispensable part of his library. The June number is one of the most interesting that has appeared.

The Medical Clinics of North America.

Volume I, No. 1 (The Johns Hopkins Hospital number, July, 1917). Octavo of 193 pages, 14 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published bi-monthly. Price per year, paper, $10; cloth, $14.

This, the first number of the Medical Clinics of North America, is known as the Johns Hopkins number and the following have contributed to its contents: Theodore C. Janeway, Lewellys F. Barker, Herman O. Mosenthal, Thomas B. Futcher, Louis Hamman, Thomas R. Brown, all of Johns Hopkins Hospital. The subjects discussed are varied and instructive. One of the very interesting discussions in this number is by Mosenthal on Essential Hypertension, another is by Barker on Fibrillation of Muscular Tissue, and another by Janeway on Postural Albuminuria.

The Mayo Clinic, Rochester, Minn.—1916 Collected Papers of.

Octavo of 1,014 pages, 411 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $6.50 net; half morocco, $8.50 net.

There is perhops no more important contribution to the medical literature of today than these annual reports from the Mayo Clinic. The papers prepared by members of the staff present the conclusions drawn from a very large clinical experience and are authoritative on the subjects discussed. The wide range covered by these papers makes the book of great value to the surgeon and the internist as well.

Lessons in Spoken French for Doctors and Nurses.

By Ernest H. Wilkins, Algernon Coleman and Ethel Preston of the Department of Romance Languages and Literatures at the University of Chicago. Published by the University of Chicago Press, Chicago, Ill. Price, postpaid, 54 cents.

This little text book is prepared for the convenience of physicians and nurses who will be engaged in duties connected with the army in France. The French words are presented consistently in terms of sound just as they will present themselves in France, and the word-lists have been compiled with reference to the particular needs of doctors and nurses.

How to Run an Automobile.

By Victor W. Page, M.E., Member Society of Automobile Engineers. Published by the Norman W. Henley Publishing Company, 132 Nassau St., New York. Price, $1.

This is a handy little book of about 175 pages giving a great deal of valuable information as to driving a car and its care. It also gives in detail much information about the construction of various important parts of an automobile and is very completely illustrated.

MISCELLANEOUS

Neuropathic and Psychopathic Conditions of Soldiers.

In detailing psychiatrists and neurologists to special duty with the armies, the Surgeon General has had in mind (1) the proper care and treatment of soldiers who become incapacitated through mental or nervous disease, (2) the special examination of recruits in the training camps in order that those who because of neuropathic or psychopathic conditions are unfit for military duty, may be identified and discharged from service.

Until the troops move abroad the chief and most important responsibility of the military psychiatrists and neurologists will be the special examination of recruits. It is obvious that no man should be eliminated from the service who is fit to render a valuable service in this emergency. On the other hand, it is quite apparent that individuals suffering from certain forms of nervous and mental diseases should not be permitted to enter into service, as experience with the American armies has shown quite conclusively that such individuals are not capable of military service even in time of peace, and experience in the European armies has shown beyond question that such individuals are not able to withstand the rigors of modern warfare. At critical times such individ-

uals go to pieces, with the result that the military force is weakened, is hampered in the free performance of its function, and the Government is likely to be burdened after the war with the care of a large number of invalids.

At the request of the Surgeon-General, the question of those who should be excluded from the military services on account of mental and nervous disease has been carefully studied, and with the approval of the Surgeon General we would suggest that the following general outline be followed in determining this matter. It is important that the potential as well as the actual condition of the recruit be kept in mind. For this reason emphasis has been laid upon the early symptoms of disease. Likewise, attention has been called particularly to those diseases which are most likely to be met and which have not very obvious symptoms but which, nevertheless, can be diagnosticated relatively easily and with considerable certainty. It is not to be assumed that other neuropathic and psychopathic conditions when found are not cause for exclusion. Most of these, however, such as multple neuritis, various forms of paralysis, hemiplegia, cranial nerve palsies and peripheral neuritis, have such striking symptoms that they are likely to be recognized before they come to the attention of the neurologists and psychiatrists.

RECRUITS TO BE EXCLUDED

I. Nervous Diseases.

(*a*) On the basis of disease:

1. Tabes (Look for Argyll-Robertson pupils, absent knee and ankle jerks, ataxia of station and gait).

2. Multiple sclerosis (Look for absent abdominal reflexes, nystagmus, intention tremor).

3. Progressive muscular atrophy and syringomyelia (Look for fibrillary tremors; atrophy in the small muscles of the hand and of the muscles of the shoulder girdle; sears on forearm and fingers caused by burning; deformities of feet).

4. Epilepsy (Look for deep scars on tongue, face and head; voice. Where diagnosis depends only upon history of epileptic attacks given by the patient, the latter should be asked to give the address of the physician who has treated him. This history must then be verified by a letter from the physician.)

5. Hyperthyroidism (Look for persistent tachycardia, exophthalmos, tremor, enlarged thyroid).

(*b*) On the basis of symptoms or combination of symptoms or history—

1. Unequal pupils + irregular pupils + Argyll-Robertson pupils.

2. Nystagmus (in one not an albino) + absent abdominal reflexes + intention tremor.

3. Absent knee jerks associated with some one other organic neurologic symptom.

4. Exaggerated tendon jerks + Babinski.

5. Disorders of station or gait.

6. Disorders of speech (on test phrases) + facial tremor + one other organic neurologic symptom. (Stammering and stuttering *per se* is not significant of an organic neurologic condition. Stammerers and stutterers are rejected by regulations. See Form No. 94777.)

7. History of epilepsy (Ask the recruit to give the address of the physician who has attended him; this information to be verified by letter.)

II. Mental Diseases.

(*a*) On the basis of disease—

1. General paralysis (Look for Argyll-Robertson pupils, speech defect consisting of distortion of words, writing defect consisting of distortion of words, facial tremor in showing the teeth, euphoria and marked discrepancies in giving facts of life).

2. Dementia præcox (Look for indifference, ideas of reference, feelings of the mind being tampered with—*e.g.*, ideas of hypnotism—auditory hallucinations, bodily hallucinations such as electrical sensations or sexual sensations, meaningless smiles; in general, inappropriate emotional reactions, lack of connectedness in conversation).

3. Manic depressive insanity (Look for mild depressions with or without feeling of inadequacy or mild manic states with exhilaration, talkativeness and over-activity).

(*b*) On the basis of symptoms or combination of symptoms or history—

1. History of previous mental illness (Ask the recruit to state when and where he had such illness, in what hospital he was observed or treated or by what physician he was attended; this information to be verified by letter).

III. Psychoneuroses and Psychopathic Characters.

Look for phobias, morbid doubts and fears, anxiety attacks, fatigueability, hypochondriasis, compulsions, homosexuality, grotesque lying, vagabondage.

IV. Chronic Alcoholism.

Look for suffused eyes, prominent superficial blood vessels of the nose and cheek,

flabby, bloated, reddened face, purplish discoloration of the mucous membrane of the pharynx and of the soft palate; also ashen complexion and clammy skin; muscular tremor in the protruded tongue and extended fingers; (noticeable also in lack of control when the applicant attempts to sign his name); emotionalism, prevarication, suspicion; auditory or visual hallucinations, paranoid ideas.

V. Mental Deficiency.

Look for defect in general information with reference to native environment, ability to learn, to reason, to calculate, to plan, to construct, to compare, weights, sizes, etc.; defect in judgment, foresight, language, output of effort, suggestibility, stigmata of degeneration, muscular incoordination. (Consult psychometric findings.)

VI. Drug Addiction.

Look for pallor, dryness of skin; flippancy, mild exhilaration (if under the influence); cowardly, cringing attitude, restlessness, anxiety (if without the drug); distortion of the alæ nasi; contracted pupils (morphine) or dilated pupils (cocaine); dirty deposit at junction of gums and teeth; bluish and whitish needle scars on thighs and arms.

(Signed)

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ADOLF MEYER, M.D., Director, Phipps Psychiatric Clinic, Johns Hopkins University, Baltimore, Md.

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JOSEPH COLLINS, M.D., New York Neurological Institute, New York.

T. H. WEISENBURG, M.D., President, American Neurological Association, Philadelphia.

ROBERT M. YERKES, Ph.D., Professor of Comparative Psychology, Harvard University, Cambridge, Mass.

New and Nonofficial Remedies.

Parresine.—A mixture composed of paraffin 94 to 96 per cent, gum elemi 0.20 to 0.25 per cent, Japan wax 0.40 to 0.50 per cent, asphalt 0.20 to 0.25 per cent, and eucalyptol 2 per cent. Parresine acts mechanically. It is used in the treatment of burns, "frostbite," "chilblains" and for covering denuded surfaces. For use parresine is melted and applied while liquid by means of an atomizer or brush. The Abbott Laboratories, Chicago. (Jour. A. M. A., May 12, 1917, p. 1406.)

Siomine. — Hexamethylenamine tetraiodide, containing 78.5 per cent iodide. Siomine is decomposed in the intestine with formation of hexamethylenamine and iodid. It produces the effects of ordinary iodides, from which it differs only in that, being insoluble in water, it may be administered in solid form. It is marketed in the form of Siomine capsules containing, respectively, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2 and 5 grains of siomine. Howard Holt Co., Cedar Rapids, Iowa. (Jour. A. M. A., May 12, 1917, p. 1406.)

Sterile Ampules of Mercury Salicylate, $1\frac{1}{2}$ grains.—1 Cc. of suspension containing $1\frac{1}{2}$ grains mercuric salicylate in a fatty vehicle solid at ordinary temperature. Each ampule contains more than 1 Cc.

Sterile Ampules of Mercury Salicylate, 2 grains.—Each 1 Cc. of suspension contains 2 grains of mercuric salicylate in a fatty vehicle solid at ordinary temperature. Each ampule contains more than 1 Cc. of suspension. Hynson, Westcott & Dunning, Baltimore, Md. (Jour. A. M. A., May 12, 1917, p. 1407.)

Diarsenol.—A proprietary brand of arsenphenolamine hydrochloride, chemically identical with salvarsan. For a discussion of the action, uses, chemical and physical properties see New and Nonofficial Remedies, 1917, under Salvarsan. Diarsenol is marketed in hermetically sealed ampules containing, respectively, 0.1 Gm., 0.2 Gm., 0.3 Gm., 0.4 Gm., 0.5 Gm., 0.6 Gm., 1.0 Gm., 2.0 Gm., and 3.0 Gm. diarsenol. The Council accepted diarsenol for New and Nonofficial Remedies, as the available supply of salvarsan appeared to be insufficient to supply the demand, and this preparation conforms to the rules of the Council for acceptance of proprietary preparations. Diarsenol is made in Canada by the Synthetic Drug Company under a license issued by the Commissioner of Patents of Canada. The Farbwerke-Hoechst Company, however, announces that the sale of brands of arsenphenol-amine hydrochloride

other than that sold as salvarsan is, in its opinion, an infringement of its rights. The company states that all violations of these rights will be prosecuted under the law. (Jour. A. M. A., May 12, 1917, p. 1407.)

Sofos.—A mixture of sodium dihydrogen phosphate and sodium hydrogen carbonate rendered stable by coating the particles of one of the constituents with disodium hydrogen phosphate. One part of sofos has the same phosphate value as 1.75 parts sodium phosphate U. S. P. When sofos is treated with water, sodium sulphate (Na_2HPO_4) is formed and carbon dioxide is set free. Sofos has the physiologic action of sodium phosphate. It is claimed to have an advantage over the effervescent sodium phosphate preparations in that it is free from citrate or tartrate. The General Chemical Co., New York City. (Jour. A. M. A., May 26, 1917, p. 1551.)

Hay Fever Pollenin Spring—Mulford.—A liquid obtained by extracting the protein of the pollen of rye, timothy, orchard grass, sweet vernal grass, and red top grass, and standardizing the solution to a definite protein content. This pollen extract is said to be useful for the prevention and treatment of spring "hay fever." It is supplied in a four-syringe package containing increasing doses of pollen protein and in a one-syringe package containing the maximum dose. The H. F. Mulford Co., Philadelphia.

Hay Fever Pollenin Fall—Mulford.—A liquid obtained by extracting the protein of the pollen of ragweed, golden rod and maize and standardizing the extract to a definite protein content. This pollen extract is said to be of value in the prevention and treatment of fall "hay fever." It is supplied in four-syringe packages containing increasing doses of pollen protein and in a one-syringe package containing the maximum dose. The H. K. Mulford Co., Philadelphia.

Borcherdt's Malt Olive.—A liquid stated to be composed of olive oil 20 per cent, glycerin 10 per cent, and Borcherdt's malt extract 70 per cent. The Borcherdt Malt Extract Co., Chicago.

Citresia.—Magnesium acid citrate, the hydrated acid magnesium salt of citric acid. A colorless salt, very soluble in water and having a pleasant acid taste. It may be administered in place of solution of magnesium citrate by dissolving 25 Gm. in 25 Cc. syrup of citric acid and 125 Cc. water. Horace North, New York.

Pasteur Antirabic Preventive Treatment (Harris Modification).—An antirabic vaccine prepared from brains and spinal cords of rabbits, dead of fixed virus rabies infection, and standardized by the method of Harris. One dose is given for a period of fourteen days. Each dose is sent out separately. Eli Lilly & Co., Indianapolis, Ind. (Jour. A. M. A., July 7, 1917, p. 39.)

Acetylsalicylic Acid, M. C. W.—A brand of acetylsalicylic acid complying with the standards of New and Nonofficial Remedies. Mallinckrodt Chemical Works, St. Louis. (Jour. A. M. A., July 21, 1917, p. 199.)

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Medical Service in the War.

At the request of some leading medical men in this country, Dr. T. H. Goodwin of England describes the organization of the medical service of the British Army on the western front. With each battalion of infantry, regiment of cavalry, or brigade of artillery is a medical officer with a small detachment of medical and sanitary personnel, and suitable medical and surgical equipment. Before an action this officer forms a "regimental aid post" in a dugout or sheltered position to which the wounded of his regiment are brought by the regimental stretcher bearers where their dressings are applied, fractures immobilized, etc., and after a short stay are removed by the field ambulance bearer division to advanced or main dressing stations which are formed by the field ambulance tent division. The means of transport with the field ambulance bearer division consists of twenty-seven stretcher squads, each of four bearers with a stretcher, seven motor ambulance wagons, and three horse ambulance wagons. From the dressing station the wounded are convoyed by the motor ambulance convoy, consisting of fifty ambulance cars with four medical officers, to the casualty clearing stations, where a large amount of surgery is done. Patients with wounds in their abdomen or head are brought back from the front as quickly as possible for early operation. The casualty clearing station is always near a railway station and the wounded are conveyed thence by ambulance trains to the stationary and general hospitals at the base or on the lines of communication. While definite rules cannot be laid down as to distances, the following can be accepted as an average: From the front line trenches to the regimental aid post, 500 yards or more; regimental aid post to advanced dressing station, half a mile to one mile; advanced to

main dressing station, one and one-half miles; main dressing station to casualty clearing station, five miles. The amount of medical supplies required in modern warfare is very large and in addition to these there are almost innumerable articles outside of the authorized equipment which are of immense value for the comfort and diversion of the patient. He speaks of the value of the Red Cross service in giving aid to the regular army medical corps and speaks of the cordial cooperation of the tactful army surgeon with the fighting officers. The subject of sanitation is always a live one and the opportunities for professional work and experience are very great. In conclusion he speaks of the shortage of medical men and the consequent increasing demand. In several districts in England there is only one physician left to every 5,000 inhabitants. On the western front alone since the beginning of the war there have been 195 medical officers killed in action, 707 wounded and 62 deaths from disease. He also speaks appreciatively of the aid furnished by the United States. Six base units from the United States are now hard at work in France and a total of 253 medical men and 434 nurses have already gone over.—Jour. A. M. A.

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A New Iodine Compound.

It seems possible, if not probable, that the medicinal effect of a dose of potassium iodide is in molecular proportion (forgetting the possibilities of dilution which would affect the reaction to some extent) to the hydrochloric acid, rather than being related to the size of the dose. There is a way to prove or disprove the correctness of this theory, and that is by the production of a compound of iodine that will react in the presence of hydrochloric acid to the formation of iodine. With such a compound the presence of any hydrochloric acid, in theory, would result in the ultimate formation of iodine. The hydriodic acid is one of the resultant products of the reaction of hydrochloric acid on an iodide.

A compound has been placed on the market by the Howard-Holt Co. which it is believed will have a clinical effect more in proportion to the dose and which will cause less of the irritating effects of the potassium salt. As it can be given in capsules the disagreeable taste will also be avoided. It is sold under the name of Siomine which chemically is hexamethylenamine-tetraiodide. They say of it:

It is possible to shake out the entire iodine content from Siomine with a very dilute solution of hydrochloric acid, and for this reason we believe that the iodine action from Siomine bears more closely a quantitative relation to the dose than does the action of potassium iodide. Further than this, it is very probable that in the administration of Siomine the hydrochloric acid content of the stomach is not materially diminished, as the basic product, hexamethylenamine, loses its identity in solutions of hydrochloric acid. This might lend to the value of Siomine in producing less gastric disturbance.

With potassium iodide one must first obtain the irritating hydriodic acid before this can be oxidized and give gradual amounts of iodine. In the case of Siomine, the hydrochloric acid of the stomach immediately, though gradually, frees iodine, obviating the needless formation of large amounts of hydriodic acid or calling up certain mechanists of oxidation.

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Chronic Non-Tuberculosis Lung Infection.

Nine cases diagnosed by experienced physicians as supposed tuberculosis in which the disease was proved to be non-tuberculous are reported by Albert H. Garvin, W. W. Lyall and M. Morita in the American Review of Tuberculosis. The clinical course in these cases begins with an insidious onset with subsequent development of periodic cough and expectoration and even haemoptysis during a state of rapidly waning health. All the symptoms of pulmonary tuberculosis may occur in chronic non-tuberculous lung infection. Physical signs as elicited in the upright position may or may not differ from those of tuberculous pulmonary infiltration. But while pulmonary tuberculosis is frequently a disease with a wealth of physical signs and a paucity of symptoms, the reverse is true in chronic non-tuberculous lung infection. However, examination in the inverted position will often reveal the site of the infected area when it could not be discovered otherwise. In the differential

diagnosis from pulmonary tuberculosis the points suggestive of chronic non-tuberculous lung diseases are: (1) longer duration and lesser severity of effect upon the patient, (2) better general health, (3) ninety per cent of lesions at the base and only ten per cent in the apices or upper lobes, the reverse of the conditions found in tuberculosis, and (4) physical signs less manifest than the symptoms.

The essential treatment is posture. Drainage of the basal lesion in the inverted position removes the muco-purulent sputum and relieves the pressure and absorption symptoms due to retention of the secretion. At least fifteen minutes four times a day is the minimum rule. Initial treatment may cause a brisk reaction with fever, but, as it is continued, rapid improvement of the general condition and diminution of sputum to a minimum follows. The prognosis in younger patients is excellent.

Bacteriological examination of the deepest or residual sputum showed B. influenzæ of low virulence in seven out of eight cases. In four of these it was the predominating organism and in the other three second in point of frequency. The persistence of the microorganism places these patients in the carrier group. The microorganism may be the etiological factor in base lesions of the lung. Management of the cough and sputum as usually practiced by tuberculosis patients prevents the dissemination of B. influenzæ.

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Treatment of Hay Fever.

Notwithstanding the many "specifics" and "near-specifics" for hay fever that have been pushed forward in recent years, the disease, if not precisely enigmatical, continues to baffle and perplex. It is evident that no single therapeutic agent has arisen that can eliminate, or even modify, the symptoms in all cases. Individual sufferers present problems that are peculiar to themselves, and other than the vasomotor relaxation of the upper respiratory tract, which is common to all, there are no uniform underlying pathologic changes.

Fortunately there are some very satisfactory alleviants. The suprarenal substance, in the form of its isolated active principle, Adrenalin, is undoubtedly one of the best of these. Experienced practitioners say that in a large majority of cases it successfully controls the symptoms. Adrenalin Chloride Solution and Adrenalin Inhalant are the preparations commonly used, being sprayed into the nares and pharynx. The former should first be diluted with four to five times its volume of physiologic salt solution. The latter may be administered full strength or diluted with three or four times its volume of olive oil.

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Cranial and Brain Injuries in Labor.

Arthur Stein, New York (Journal A. M. A., August 4, 1917), calls attention to the preventable traumatisms occurring in labor and their effects on subsequent mental development of the child. Unduly prolonged or otherwise abnormal deliveries, he says, may damage the child's brain in two ways: (1) direct contusion of the brain substance; (2) local congestion and rupture of intracranial vessels by the overriding parietal bones, and (3) general congestion of the venous system causing obstruction of the fetal circulation and resulting in capillary rather than diffuse meningeal hemorrhages. The subject of displacement of the cranial bones from compression of the child's skull has been already noted by Dr. Grace Peckham Murray in a paper on Wormian bones in the fontanels based on personal experience, with three lengthy labors resulting in stillbirths. She points out the detrimental influence on the child where such bones exist. It is not unreasonable to assume that other infants that survive may have hopelessly damaged brains, and the question arises whether these Wormian bones in fontanels, especially in the posterior fontanel, by preventing the overlapping of the sutures and normal moulding of the skull may not expose well developed infants to danger of idiocy and imbecility. It is a pity that surviving children born after unaided but unduly prolonged labors have never been systematically studied in their primary school work and later mental development. Equally regrettable is the lack of information regarding the birth conditions of children in institutions for the feeble-minded. There are rarely any extensive comments on this point, but the obstetric forceps are frequently credited. Obstetric clinics, as far as Stein has been able to ascertain, keep no notes on this subject, and he has therefore sought to obtain some statistics from institutions for the feeble-minded. In the Pennsylvania

Training School for Feeble-Minded Children, of 5,000 cases there were records of instrumental delivery in 2.68 per cent, and difficult and prolonged labor in 1.50 per cent. In a total of 562 cases on record at the training school for mentally abnormal children at Vineland, N. J., the history of an extremely prolonged labor appears 125 times. In 54 of these births no instruments were used or artificial assistance of any kind. The records at Randall's Island gave few data on this point, and altogether Stein says the meager statistics hardly permit one to draw any conclusion. According to Duhrssen and his pupil Kuntzel, the only ones who have taken up this subject, unduly prolonged and difficult birth exercise very much more injurious influence on the child's brain than does skilled instrumental delivery, and other testimony to the evil effects is furnished by neurologic literature, as for example at the Bicetre Institute in Paris and the observations of Shuttleworth and Potts, at the Royal Albert and Darenth asylum. A lengthy quotation from Currier is also given, and still further references to Klotz, Jelliffe and Peterson.

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War and the Diet.

The war has given a tremendous importance to the whole subject of diet. Food ranks almost with bullets as a vital factor in the great struggle, and efficient utilization of the crops is just as necessary as big harvests. The Carnegie Institute of Boston is to conduct a series of experiments this fall to demonstrate whether men and women cannot maintain their powers on a smaller ration than has hitherto been accepted as the minimum. The Battle Creek Sanitarium has just finished a metabolism experiment lasting forty-five days, with ten subjects. The object was to determine the effect of different diets on the chemical composition of the blood. The results have not yet been tabulated.

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Resection of Lobes of the Lung.

While large portions of the lung may be removed experimentally from the normal animal with ease and safety, this is by no means the case with a sick man with chronic pulmonary disease, according to Samuel Robinson, Rochester, Minn. (Journal A. M. A., August 4, 1917). It is by no means a trivial performance. The indications for lobectomy are few, but these must be specific. Chronic nontuberculous lung abscess, and bronchiectasis are at present the only diseases to which such radical procedure should be applied, and then only in selected cases. One lung must be absolutely sound. The disease must be confined to one lobe or at least to one lobe and the adjacent portion of an adjoining one. Active tuberculosis must be excluded, the heart normal, and there must be no other systemic or organic disease. The patient should be under 35 years of age, certainly not over 45, and there must be evidence that all non-operative measures have failed or are bound to fail and that the existing pulmonary infection is not one capable of being cured or relieved by direct drainage of the lung. If his resistance is not too slow, and palliative treatment or drainage is out of the question, lung resection may be considered, but the patient must be informed of its dangers and the discomfort he will have to undergo. It must be explained that the chances of relief or cure by surgery are between 60 and 70 per cent. Robinson describes the technic he has employed which differs from that of other surgeons and that always employed with animals, in rather complete detail, too long for short abstract. It consists in a several stage operation with a multiple rib resection exposure, rather than a single operation with a wide intercostal exposure. The division into stages he holds reduces the insult to the respiratory and circulatory systems. The intrapleural pressure is less definitely altered, and the pulmonary circulation not so suddenly overworked. The difficult part of the operation in delivering the lower lobe is the separation of adhesions. To stop the operation at the middle of the second stage, which should be about a week after the first and after the power of expelling sputum has been restored and all trace of shock has disappeared with approximately normal temperature, and to defer the completion of adhesion-stripping and the amputation to a third stage is a conservative measure which in difficult cases may save the patient from undue hemorrhage, shock and carbon dioxid poisoning. The after-treatment of the second operation is simple. Within the first two days the bronchial tree becomes free from the residue emptied into it and the relief of the patient is great.

Typhoid Fever.

W. Coleman, New York (Journal A. M. A., August 4, 1917), has published a statistical study of 444 cases of typhoid fever during the years from 1903 to 1914, inclusive, showing the advantages of the high calory diet. Two hundred and twenty-two on the milk diet. The various phases and of the patients had this diet and 222 were complications of the disease according as they occurred under one or the other diet are noted as well as the mortality and general clinical picture. The following is his summary: "A comparative study of 222 patients with typhoid fever on the high calory diet and of an equal number of patients on a milk diet has brought out the fact that the natural history of the disease, as it has previously been known, is profoundly altered by the maintenance of an optimal state of nutrition. The range of temperature apparently is not affected, but the total duration of the disease is shortened, in some instances by months, through the shortening of convalescence. Certain symptoms which hitherto have been attributed to the specific action of the typhoid bacillus have been discovered to be due to faulty methods of treatment, in particular to an inadequate or improperly balanced diet. Complications are rendered less formidable, and perhaps less frequent, by maintaining the patient in the best possible state of nutrition. Moreover, the mortality of the disease is reduced from 50 to 75 per cent."

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Jaundice in the New-Born.

MILTON HAHN, A.B., M.D., Arkansas City, Kansas.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

Probably few of us realize what a remarkable epoch in the history of medicine is the one in which we are living. New and important discoveries in bacteriology, chemistry and other medical sciences are so frequent as to become commonplace. In handling diseased conditions we have come to depend more and more on laboratory and mechanical methods, and so much of the purely clinical skill and thoroughness of our forefathers has been sacrificed—a loss which I believe is to be regretted. We are traveling so fast in this century that we miss some of the beautiful scenery on the way. For this reason I believe that a paper of this kind may be presented here without any apology. The subject of the paper, Jaundice in the New-Born, is a common condition, one with which you are all familiar, and usually regarded as of little importance. There is nothing new in the paper, which has been garnered from a rather painstaking harvest of the literature on this subject.

Jaundice of the new-born, or icterus neonatorum, when it occurs appears on the second or third day of life; sometimes a trace of pigmentation is found at the end of the first day. It is never seen directly after birth and rarely in the first twelve hours, and never begins later than the third day. Some experience is required in detecting the mild cases, as the discoloration may be obscured by the hyperaemia of early life, and is revealed by pressing the blood out of the skin with the finger or a glass slide. Jaundice is most intense on the trunk and the face and extremities, especially the palms of the hands and the foot-soles at first may remain free. The conjunctivae are usually not markedly colored, but the mucous membrane of the mouth is distinctly pigmented.

There is considerable variation in the duration and intensity of the jaundice. It usually reaches its maximum intensity on the third or fourth day, then gradually recedes, completely disappearing by the end of the first week or the beginning of the second week. Mild cases may be visible only one or two days, while prolonged cases occasionally extend over the second week and may last into the third or fourth week. If the condition lasts into the second month one ought to suspect some serious pathological condition, although benign icterus can last longer than this, particularly in premature infants.

In intensity the jaundice varies from scarcely visible traces to a deep orange tint of the entire body. The general condition of the child has some influence on the depth of pigmentation, sickly children having a muddy color, while in vigorous children the skin has a bright yellow tint.

The gross appearance of the stools and urine is normal, and this is an important point in differentiating benign icterus of the new-born from the more malignant forms. In benign cases the stools contain the normal amount or perhaps an excess of pigment even in children who are very

deeply jaundiced. The urine is normal in color and contains no bile pigment in solution; it does, however, contain insoluble bile pigment in the form of a sediment of yellow scales and granules, the so-called *masses jaunes* of the French writers. Acholic or clay-colored stools, and bilirubinuria—that is, urine containing dissolved bile pigment—are characteristic symptoms of those types of malignant jaundice in the new-born which are caused by biliary obstruction. Bile pigment, however, is present in solution in secretions other than the urine even in benign icterus; for example, the tears and the nasal secretion may have an intense yellow color. The absence of dissolved bilirubin in the urine in benign icterus of the newborn is explained by the absence or small quantity of the alkaline phosphates which are necessary for their solution.

Benign icterus, of course, is also characterized by the absence of other abnormal signs, as enlargement of the liver and spleen, abnormal pulse rate and toxic symptoms.

Post-mortem examination shows intense jaundice of all the internal organs, and particularly of the intima of the blood vessels. Bilirubin crystals are found in the papillae of the kidney, in the brain and other organs, showing that the tissue juices as well as the urine have a low power of dissolving bile pigment.

The relation of icterus to body weight is of some interest. It is known that small and especially premature infants have icterus of longer duration and greater intensity than those who are fully developed; and comparing large series of cases one finds icterus more frequently in children of low body weight than in those of high body weight. Nevertheless, it is not uncommon to find the condition fully developed in large and vigorous infants.

It has been said that the early, so-called physiological, loss of weight is greater in icteric than in non-icteric infants, and this assertion is apparently supported by statistics. Such statistical evidence, however, is of little value. The changes in weight of new-born infants is chiefly dependent on the amount of feeding, and icterus plays a subordinate part if any. Furthermore in the relation of icterus to loss of weight we are unable to distinguish cause and effect, that is whether the children lose weight on account of icterus or rather on account of the hypothetical cause of icterus, or whether they become icteric on account of the loss of weight. Moreover, exceptions to this relation if it does exist are common, as many icteric infants suffer slight loss of weight, and there are many cases of marked loss of weight without icterus.

Concerning the frequency of jaundice of the new-born, the published statistics show a marked difference. These statistics run from 15 per cent of all cases up to 100 per cent; and every intermediate point is represented in the writings of some author on this subject. These figures are an index of the powers of observation in their respective authors. Mild cases of jaundice may be overlooked or willfully excluded. There are also local and chronological variations in the incidence of the condition, which may be partly dependent upon hygienic considerations, as infection is believed to have some influence upon the frequency and intensity of icterus.

The cause of jaundice of the new-born is still an open question, but it will repay us to review some of the arguments in support of the various theories which have been advanced to account for its origin. The chief point in this discussion is as to whether the condition is to be regarded as physiological or pathological, and this too remains a matter of opinion. Icterus of the new-born, however, is strikingly differentiated from the various types of jaundice which occur in later life by its comparative frequency and harmlessness.

Whether it be due to one etiological basis or to many contributory causes, still from the characteristic susceptibility of the new-born to jaundice one is justified in regarding jaundice of the new-born as a distinct clinical entity, and in inquiring why the organism has this marked disposi-

tion in early life.

Many attempts have been made to correlate the condition with anatomical peculiarities of the new-born. Thus Quincke believed that the bile passed from the bowel into the general circulation through the ductus venosus, the fetal communication between the portal vein and the inferior vena cava.

Evidence in support of this theory is given by Elsaesser, who found this duct remaining open in 96 per cent of seventy-eight infants dying during or directly after birth, and in 88 per cent of 200 children who died in the first few days of life. No conclusive argument has ever been brought against this theory.

Another anatomical hypothesis is that advanced by Hasse, who believed the condition to be caused by the movements of the diaphragm in respiration: inspiration causing increased pressure in the bile ducts and temporary damming back of the bile which passes over into the blood. He pointed out that the peculiar anatomical relations in the new-born are especially conducive to a marked increase of pressure in the biliary system during inspiratory descent of the diaphragm. These peculiarities are the large size and low position of the liver, and the peculiar structure of the hepatic fissure which allows the duodenum to press directly upon the bile ducts and hepatic vessels.

Various changes within the liver have been described, as desquamative catarrh of the bile ducts, congenital narrowing of the ducts, and oedema of the capsule of Glisson; but these changes have not been confirmed by the anatomical findings.

The theory has been advanced that the hyperaemia of the liver causes stagnation of bile by means of the compression of the bile capillaries by the distended blood capillaries, but this, too, has been refuted by anatomical studies which show the bile capillaries to be not compressed but distended.

Virchow believed the condition to be similar to catarrhal jaundice in adults and that the jaundice was caused by a plug of mucus in the mouth of the common duct. This belief is, I believe, a common one among physicians today; but the absence of acholic stools and other symptoms of biliary obstruction render this theory improbable.

Opitz believed the condition to be due to oedema of the ducts caused by duodenal catarrh, and thought that the giving of large amounts of food in the first few days of life favored the appearance of jaundice. It is difficult, however, to reconcile this supposition with the facts, as jaundice appears on the first or second day when the feedings are usually small, and subsides at the end of the first week when the feedings are increasing. Furthermore jaundice is an extremely rare condition in later infancy in spite of the frequency and severity of intestinal catarrh.

Recent anatomical studies pretty conclusively refute all attempts to explain jaundice of the new-born by mechanical factors. Eppinger has shown the characteristic finding in obstructive jaundice to be numerous ruptured bile capillaries, and these could not be demonstrated in careful studies made in cases of jaundice of the new-born. It has been shown that during the first few days of life there is an over-filling of the bile ducts and varicose widening of the bile capillaries, and that this distension begins after birth. Studies of the bile show the viscosity to be relatively high at birth. At this time the bile capillaries are filled with a thick turgid bile, requiring a high pressure of secretion to force it onward. Immediately after birth there begins an increased secretion with a consequent lower viscosity, necessitating a still greater rise in the pressure of secretion.

These studies of the histology of the liver and the viscosity of the bile have led to a very scientific and plausible explanation for the origin of jaundice in the new-born which has been pretty generally accepted. According to this theory the cause of the jaundice consists essentially in a stagnation of bile within the liver due to

a disproportion between the secretory and excretory functions of the liver cells. There is an increased secretion of bile following birth, while at the same time the excretory power of the liver cells is low. Consequently the cells are filled with excess bile which is absorbed by the blood and lymph and carried to the tissues of the body, causing jaundice.

There has been considerable discussion as to whether the functional insufficiency is due to immaturity of the liver cells or to injury of the cells by bacteria or toxins. Probably both factors are involved. That immaturity of the cells plays a part seems probable from the fact that jaundice is particularly frequent and intense in premature infants.

The immaturity of the cells makes them very vulnerable to external injury, and it is probable that bacteria and toxins frequently gain access to the liver through the portal circulation from the bowel, as the intestinal mucosa in early life is a very permeable membrane. There is also considerable clinical evidence in support of the view that the incidence of jaundice of the new-born is influenced by infection. In large obstetrical clinics the cases appear in epidemic form, being prevalent at certain periods and infrequent or absent at others. There are epidemics of severe and of mild cases, and disinfection or non-disinfection of the wards seems to have some influence on the prevalence of the condition.

There are many factors which may possibly contribute to the increased secretion of bile in the new-born. The chief one of these is the hyperaemia of the liver; this is part of the general hyperaemia which affects all the organs after birth and is due to several causes: to the physiological transfusion of placental blood, the change from the fetal to the extrauterine circulation, and the circulatory stasis due to compression during birth. The hyperaemia of the liver is increased still more by the beginning intestinal peristalsis after birth with consequent increased supply of blood to the portal system. The beginning of feeding also reflexly stimulates the liver to an increased secretion of bile at this time.

Still another way in which the bile secretion may be increased is by the destruction of red blood cells in the body. The bile pigment, like all pigments in the body, is derived ultimately from the haemoglobin, which is liberated from the blood either by rupture of the blood vessels and hemorrhage into the tissues, or by laking of the red blood cells in the circulation. Extensive internal hemorrhages are common in the new-born, and these may possibly contribute to the increased production of bile. It is a fact that jaundice is particularly frequent and intense after difficult labors, and that the hemorrhagic diseases of the new-born are frequently associated with jaundice, but this is not always the case, very extensive hemorrhages occurring without jaundice. Moreover, that the hemorrhage can be only a partial factor is shown by the fact that jaundice is rarely seen in combination with the hemorrhagic diseases of later life.

That destruction of red blood cells by toxins in the circulating blood may cause jaundice is shown by the occurrence of cases of socalled hemolytic jaundice in adults, and it has been suggested that there is an increased blood destruction in jaundice of the new-born. This has, however, not been proven. Studies of blood counts in this connection are inconclusive, the blood count being the resultant of several factors, namely the concentration of the plasma, the destruction of blood cells, and the activity of the blood-forming organs. As a matter of fact the number of red blood cells usually rises during the first two or three days, then falls during the following weeks.

It seems definitely established, then, that the chief cause of jaundice in the new-born is the hyperaemia of the liver, and that one or more of the other factors mentioned may be contributing causes in different cases, namely immaturity of the liver cells, infection, toxemia, hemorrhage, etc.

While icterus of the new-born is almost always a harmless thing, it must not be forgotten that jaundice is a prominent symptom in many grave pathological conditions which occasionally are found in early life; and some of these conditions will be briefly discussed. The liver is a particularly vulnerable organ in early life, so that jaundice is a common symptom in many of the infectious diseases of the new-born. The immature liver cells have a relatively low resistance, and this organ besides being affected in all systemic diseases, has its own individual foci of infection in the bowel and umbilicus, which are the chief portals of entry for pathogenic organisms in young infants. There are all degrees of infectious jaundice in infancy from mild infections which cannot be differentiated from icterus neonatorum to cases of acute fulminating sepsis which run a course similar to that of acute yellow atrophy in adults with intense icterus, hemorrhage, leucin and tyrosin in the urine —a sign of rapid destruction of liver tissue—and death in a few days. On section in these cases there is found extensive coagulation necrosis of the liver. Similar cases occur which are not septic but of toxic origin, as in children of eclamptic mothers. The liver is primarily affected in the toxic cases as it is the first organ reached by the toxic blood coming through the placental circulation, as it is the first organ affected in umbilical sepsis.

A special classification has been made for a group of cases of jaundice in the new-born under the term, Icterus Gravis. This syndrome consists of a rapidly increasing icterus with dissolved bile in the urine but without acholic stools, signs of meningeal irritation and death usually at the end of the first week. Post mortem there is found parenchymatous degeneration of all the organs; all the tissues are deeply bile-stained, and especially the nuclei at the base of the brain and the posterior columns of the spinal cord. There is a great deal of discussion as to the nature of this disease, but it is probably a form of sepsis, as positive bacteriological findings have been made in all cases which have been investigated.

An intermediate condition is exemplified in the cases of so-called infectious jaundice of the new-born. These cases occur in epidemic form and are characterized by icterus, cyanosis, sometimes convulsions and intestinal disturbances, ending after several days in recovery, but which may end fatally.

The various types of infectious, septic and toxic icterus present the additional symptoms of the general disease and are as a rule easily differentiated from the ordinary benign jaundice of the new-born.

It has been shown that duodenal catarrh can not be responsible for icterus neonatorum. Catarrhal jaundice does, however, occur in infants, but is one of the greatest rarities. This is a symptom complex which is easily differentiated, consisting of icterus with acholic stools bilirubinuria and a favorable prognosis.

Diseases of the bile ducts play a prominent part in the production of jaundice of the new-born. Gallstones occasionally are found, and there are several cases on record. They result from fetal inflammatory processes and may terminate in stenosis of the duct.

An important cause of jaundice in the new-born is congenital stenosis of the large bile ducts. There are about one hundred cases of this lesion on record. Many of them were probably syphilitic in origin, and there is great variety in the anatomical picture; there may be stenosis at one point in one or more ducts; the entire duct may be converted into a solid cord of connective tissue; or there may be complete absence of one or more ducts or of all the ducts and the gall bladder.

In the last condition it seems probable that the ducts were first formed and later obliterated on account of embryological considerations. The liver and its ducts are an outgrowth from the gut, and the hepatic ducts must first be formed before the liver can develop.

Most cases of stenosis of the ducts are believed to be due to aplasia, *i.e.*, retention

of an early stage of development, as in the case of congenital stenosis of the bowel. Normally the ducts first appear as solid cords, the lumen being formed later. There is also, however, the possibility of fetal infection, especially in those cases which are associated with syphilis, and in certain other very interesting cases in which the biliary obstruction first develops several weeks after birth.

The characteristic symptom of stenosis of the bile ducts is the occurrence of clay-colored acholic stools. This symptom is usually present at birth, but often meconium is first passed to be succeeded by acholic stools after a few days. Then there are the rare cases in which the clay-colored stools appear later. The other prominent symptom is an intense icterus with dissolved bile in the urine. The cases have all ended fatally with gradually increasing cachexia. They may last several months but no case has lived as long as a year. The only conceivable form of therapy is some anastamotic operation.

Congenital tumors of the liver occur and may cause biliary obstruction by pressure upon the ducts. The most frequent type is a round-celled sarcoma. Most of the reported cases of this tumor were associated with tumor of the adrenal, or hypernephroma. This combination is found only in congenital cases, and the tumor of the liver probably represents displaced adrenal tissue. These cases are easily diagnosed by a combination of jaundice with ascites and a palpable hepatic tumor. 8he symptoms are present at birth or appear after a few weeks, and death occurs in a short time.

Other rare forms of tumors of the liver found in the new-born are carcinoma, congenital angioma, and cysts.

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A certain student of economics has said: "You have only to visit the insane asylums to see the appalling ruin to both mind and body brought on by this heinous practice of birth-control. Eighty-five per cent of the women in Chicago hospitals are all as a direct result of the practice."

Fractures of the Lower End of the Humerus.

J. F. HASSIG, M.D., Kansas City, Kansas.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

I have selected this subject chiefly because of the numerous injuries of this kind, occurring in childhood, which I have seen during the past few years. These fractures are much less frequent in adults. Fractures are more common in the lower part of the humerus than the upper and may be due to direct or indirect violence.

The humerus is the longest and largest bone of the upper extremity. The medullary canal extends its full length. The lower end is flattened from before backward, and curves slightly forward. It terminates below in a broad articular surface. Extending on either side are the external and internal condyles. The articular surface is a little lower than the condyles, and is curved slightly forward. Its greatest breadth is in the transverse diameter. Its inner extremity is a little longer than the outer.

The capitellum is the outer part of the articular surface, which presents a smooth rounded eminence. It articulates with a part of the head of the radius. Above the front part of the capitellum is the radial fossa.

The trochlea is the inner part of the articular surface, and has a deep depression between two well marked borders. The internal border is thicker and more prominent and longer than the external. Above the back part of the trochlea is the olecranon fossa which receives the olecranon process when the arm is extended. Above the front of the trochlea is the coronoid fossa which receives the coronoid process of the ulna when the forearm is flexed. The internal condyle is larger and more prominent than the external condyle.

At birth the humerus is ossified nearly its whole length. The lower end develops in the following manner, the capitellum begins to ossify at the end of the second year, it extends inward and forms the chief part of the articular end of the bone,

the center part which is the trochlea appears about the age of twelve. The internal condyle commences to ossify about the fifth year and the external condyle about the thirteenth or fourteenth year. The external condyle joins with the shaft, the capitellum and trochlea about the sixteenth year. The capitellum and trochlea having already joined the shaft at about the twelfth to fourteenth years. The internal condyle unites with the shaft about the eighteenth year.

I will not dwell on the isolated fractures of the epitrochlea or epicondyles, but will give attention to the more common and difficult cases of supra- and infra-condyloid fractures, multiple and comminuted fractures into the joint, and separation of the epiphysis.

In fractures of the internal condyle, the fragment may be displaced upward or backward or in both directions and it may also be rotated. This kind of a fracture if not properly reduced and maintained causes the adduction of the forearm—cubitus varus—also known as "gunstock" deformity.

Stimson thinks that the elevation of the internal condyle in some cases is due to the arrested growth by interference of fracture through the cartilage of the epiphysis on the internal side of the joint. If this is true it could be determined by noticing the gradual increase of the deformity during the years following the fracture. When the fragment is displaced by rotation, it is generally impossible to restore it to place without an operation.

Fractures of the external condyle are more common than fractures of the internal condyle and loss of motion is not so marked as in fractures of the internal condyle. There is always a tendency to tilting of the fragment and occasionally it rotates; this displacement left uncorrected causes an abduction of the forearm—cubitus valgus—this of course increases what is known as the carrying angle of the arm. I have one of this variety in my rare collection of cases.

Intra-condyloid and T-shaped fractures are commonly caused by great violence and consequently are often compound, with great displacement of the fragments.

Separation of the whole epiphysis is not so common as reported and the great majority of supposed cases rest upon only doubtful clinical evidence. The displacement in all certain cases has usually been great and often compound and is generally mistaken for a backward displacement of the bones of the forearm. In all these conditions the utmost care must be used in examining the swollen and useless elbow.

First compare the injured and uninjured elbows, next look for the three landmarks—I mean the large prominent internal condyle of the humerus, the olecranon process of the ulna, and the external condyle of the humerus. If the elbow is not too badly swollen and these bony parts can be recognized, then a fracture ought not be overlooked.

To palpate the three bony points, grasp the patient's left wrist with your left hand, place the right thumb on the external condyle, the third finger on the internal condyle and the index finger on the olecranon process of the ulna. When the elbow is at right angle these three points will be found in the same plane with the back of the upper arm. These three points when the arm is extended are almost on a straight line transversely. By changing hands a similar examination can be made of the other elbow. The upper fragment of a supra-condyloid fracture almost always lies in front of the lower fragment and the deformity is similar and may easily be mistaken for a dislocation backward of the ulna and radius.

Always notice if the swelling and ecchymosis is general or localized, if localized that may determine the seat of the lesion. Crepitus and mobility of the fragments can usually be felt, but to determine the exact nature of the lesion it is necessary to take an X-ray plate, at least two different views should always be taken.

Before attempting reduction never fail to examine the pulse, the cutaneous sensi-

bility and movements of the forearm and hand to determine the existence of any arterial or nervous lesion, and if any are found do not fail to mention it to the relatives and friends.

The ulnar nerve is the one most often involved. The less common, the median or musco-spiral, when they are involved it follows fractures of the external condyle and supra-vondyloid fractures, it may follow soon or even years later, eighteen or twenty.

If there is much displacement of the fragments, it will be necessary to give a general anesthetic to make the proper reduction and apply the necessary treatment.

As a rule fractures of the internal condyle, of the external condyle and comminuted and T-shaped fractures into the joint are best treated in the acutely flexed position, while supra-condyloid fractures and separation of the epiphysis are best treated at right angle with the internal angular splint.

The arm should be inspected each day for the first week, on account of the increase and lessening of the swelling, and the dressing loosened or tightened as the occasion may demand.

Another X-ray plate should be taken at the end of the first week or sooner if one is not sure of maintaining the proper reduction. After the first week all of the dressing should be changed often enough to be sure that it is efficient.

The fractures extending into the joint should be immobilized for the shortest time possible. It should never continue longer than three weeks in children. A snugly fitting bandage will prove comfortable as a support after leaving off the splint. Passive motion, massage and active use of the arm will now help in regaining the use of the joint. Carrying a bucket of sand or water will also be of great aid. Passive motion that is painful does harm. All violent exercise should be avoided.

A point of interest in connection with passive motion is that in attempting to overcome any rigidity that may exist, the movement is liable to take place at point of fracture and not the articulation.

The fractures that involve the elbow joint are always serious and are apt to lead to stiffness of the joint as well as some loss of use of the limb. The movement most easily lost and with greatest difficulty regained is that of flexion, but by using the acutely flexed position, in treatment, all the flexion is ordinarily preserved, and the extension is easily obtained.

Anatomical results are not always perfect, but most fractures recover with very useful arms. However the seriousness of this kind of an injury should again be thoroughly explained to the parents.

A guarded prognosis should always be made with reference to the use of the joint. When it is impossible to maintain the proper reduction by the closed method, then the open reduction should always be used. We prefer chromic or formalized catgut and bone pegs to hold the fragments in place, always avoiding metal of all kinds as it acts as an irritant, delays union and frequently has to be removed.

If your diagnosis is correct and your treatment proper you can always encourage your patient's family, stating that you will obtain just as good results as are consistent with the character of the lesion.

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Intoxication.

J. BAIRD, M.D., Coffeyville, Kansas.

Read before the Montgomery County Medical Society, November 17, 1916.

Heat intoxication, summer diarrhea, ileocolitis, cholera infantum, is an acute affection of the organism characterized by sudden onset, with collapse, high fever, diarrhea and vomiting, and occurs most frequently in the summer months, and is most common in artificially fed babies living in poor hygienic surroundings. As to age, the idea that the second summer rather than the first is one to be dreaded is probably due to the fact that a large proportion of babies are nursed during the first summer, while practically all are

using artificial food by the time the second summer comes, with this important exception intoxication is most common in the first year, and much more fatal. No child develops heat intoxication without having undergone a greater or less disturbance of its internal metabolism through intestinal disorders. These may be slight, as a short period of dyspepsia, or more severe, due to waekened resistance from disease other than of intestinal nature.

Predisposing factors are numerous. Heat undoubtedly plays a very important part. Most cases develop in the hot summer months after a prolonged period of hot, humid atmosphere. The cause at this time is not definitely known. Some have thought that atmospheric conditions prevailing at this time, promoting growth of bacteria in food, was more a factor than was the severe heat. The result of overheating may be summed up as follows: Direct acute heat intoxication; chronic, by reducing resistance of child; third, by infection of food, poorly ventilated rooms, dirty surroundings, failure to bathe often. All pave the way for intoxication.

Active causes for intoxication are as follows: (1) Some element of the food, as sugar; (2) decomposition of food; (3) bacterial infection of intestinal wall—any or all may be causative factors. Probably the milk sugar aided by the presence of a high fat proportion is most important. This action is not confined to milk sugar alone, but is true of cane and grape sugars as well, as the removal of sugar usually hastens recovery. The fat is supposed to be broken up into toxic elements in the process of digestion causing irritation. An intestinal tract greatly weakened by nutritional disturbance would be a favorable site for bacterial lodgment. The fact that the starvation method will clear up a large per cent of the cases is suggestive of the cause of intoxication being a dietetic one.

The exact nature of intoxication is by no means clear. That the condition is not only intestinal is shown by the presence of lactose in urine during the acute stages. If the diarrhea is severe as is usually the case, with great loss of water, the ammonia content of urine also being great, this would suggest acidosis.

The onset is sudden with rise in temperature, vomiting, watery stools. It is always preceded by nutritional disturbance, the temperature mounting steadily, ranging from 103 to 105 degrees. There may or may not be vomiting. Feces usually thin and watery. Collapse often present as in convulsions. The facies are very characteristic. The staring eyes, sunken expression of face with muscular twitching and subconscious or listless condition give the baby a sick appearance.

The temperature rises quickly to 103 or 105 degrees or higher, and recedes in the same manner if starvation diet is immediately instituted. The pulse follows the temperature and is rapid and snappy, often weak. Hypostatic pneumonia not unusually occurs in prolonged cases. Diarrhea is nearly always present and usually severe. The stool is watery, with usually a musty odor, and usually green in color. Mucus is present, sometimes tinged with blood in later stages when ulceration of intestinal wall is suspected. Number of stools may not be frequent. The chief diagnostic symptoms of intoxication are the sudden onset with collapse, rapid rise of temperature, vomiting, deep pulseless breathing, severe diarrhea and general comatose condition.

Prognosis depends usually upon two factors. First, the previous state of health of the child, and second, the promptness with which proper treatment is instituted. Children under three months of age endure the shock badly. A case in which the temperature falls to normal within twenty-four hours and remains so, is favorable, but a continued fever is serious. Treatment: Much can be done to prevent the intoxication, and it is against this condition that most of the efforts to reduce infant mortality have been directed. Pure milk is very desirable, and in fact a necessity in preventing the high mortality rate, but proper treatment has always been

the one important factor. In caring for the individual child we should be careful during hot weather that the bath is properly attended to, that the milk is fresh and clean, that the clothing is not excessive, and that the child is kept much in fresh air. As a preventive measure the consumption of food should receive attention. A large amount of sugar taken by the baby is very harmful. During the heated season carbohydrates should be reduced. The diet should be simple and plain.

At the onset of the intoxication two indications are pre-eminent: first, stop food; second, supply water. This is done by supplying the child with barley water sweetened with saccharine (1 gr. to qt.) and given every four hours, at much shorter intervals water should be given. The various constituents of milk and carbohydrates are irritating in the following order: Sugar, fat, starch, and protein (of cows). A protein food would be desirable. Skimmed mulk curds suspended in five per cent gelatine solution in twenty-four to thirty-six hours is good. Rather replace the skimmed milk curds by whole milk curds. Curds from one and one-half ounces of milk to a pound of body weight would be the proper proportion. The whole time from starvation period to substitution of milk for the curd mixture should not be over a week. Good buttermilk in some cases is preferable, care as to its preparation should be noticed. In older children it would not be necessary to begin with the curd mixture, but dilute whole milk with equal parts of boiled water. The nursing interval should be four hours, limiting the amount taken. A cathartic during the acute stages of diarrhea is questionable in its effect as increased irritation is produced. Intestinal astringents may rarely be of any use, however exceptions may occur.

For fever hydrotherapeutics are very useful and will control most cases with the indicated remedy. Ice cap is indicated in some cases where fever is running high. When diarrhea is very severe with a stool every few minutes and child is in danger of death from rapid loss of fluids, opium may be given in small doses. When diarrhea becomes chronic, simple saline flushings will produce less irritation and will give some relief. As this condition is largely a dietetic problem, and it remains such until restoration is established, I have purposely omitted the drug indications in the treatment.

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The Therapeutic and Diagnostic Value and Technique of Lumbar Puncture.

JOHN J. HARRINGTON, M.D., Osawatomie, Kansas.

Read before the Miami County Medical Society, June 30, 1916.

In performing lumbar puncture the patient may be placed in one of two positions, either in bed or sitting in chair. If in bed the patient lies curled up on side with thighs and legs flexed and the back strongly arched. If sitting on bench or chair without a back and leaning forward, one assistant only is needed to steady the patient. This assistant stands directly in front of and facing the patient and with weight bearing down upon flexed head and shoulders while grasping firmly with each hand the crossed forearms manages to obtain the maximum convexity of the lumbar portion of the spinal column. This second position is preferred by many since the bony landmarks are more distinct, the extension of column is greater, there is less tendency to twisting of the spine and the patient is restrained with the least amount of assistance or trouble. One should get rid of the idea that lumbar puncture is such a difficult procedure. However, one can modestly say that it is very easy only after considerable practice.

In the lumbar portion of the vertebral column the spinous processes project only slightly downward, so that there is a distinct space between them. The lumbar cord extends down as low as the body of the second lumbar vertebra. Therefore one can safely introduce the needle in the second, third or fourth lumbar interspaces. Usually the third is preferred and this is just above a line drawn transversely

touching the upper border of each iliac crest. The prominences of the lumbar vertebrae can be readily palpated and the intervening spaces made out quite easily except in very stout individuals. We may puncture the interspace in the median line or one-half inch to either side. One objection advanced to the former route is that thick superspinous and interspinous ligaments must be encountered. These ligaments may be very tough but my experience has been that if the needle is properly directed and does not encounter bone, very little pressure is necessary to cause it to enter the spinal canal. There is less likelihood of blood contamination if the median route is used. In either case the most trouble is met with where the adipose tissue is abundant and possibly an inch thick. Then the landmarks are blurred and the needle has farther to travel. The average depth in children is three-fourths to one and one-half inches and one and one-half to three inches in adults.

The skin of lumbar area is cleansed with green soap followed by alcohol. The operator's hands are treated thoroughly with the same solution.

Quincke's needle of medium caliber is satisfactory and the stylet, if used, tends to prevent blood contamination of the fluid. The needle is to be boiled and after inside bath of alcohol and then ether is considered to be sufficiently prepared.

An area of anesthesia is then obtained at the desired spot with ethylchloride spray. In the median line the needle is almost perpendicular to the back, with a slight downward slant. If any obstruction is encountered, then withdraw needle and make another attempt in same or lower interspace. Never attempt to get around or through bone, and do not alter the original direction of needle. Upon entering the spinal canal, fluid will escape drop by drop and not continuously or spurt out if under pressure. Now and then one is apt to have "dry taps" but this generally means that the canal is not entered. After removing the needle the wound is sealed with cotton and collodion.

The therapeutic value of lumbar puncture is important only in the case of one disease, epidemic cerebro spinal meningitis. Here Flexner's serum in doses of from 15 to 30 cc. after first removing an equal quantity of spinal fluid has caused many recoveries. Quoting from Kerley's Pediatrics (1914): "In the past the mortality of cerebro spinal meningitis has ranged from 50 to 100 per cent. With the adoption of the serum therapy, however, the death rate has been universally lowered and in 1908 Flexner and Jobling were able to report a total of nearly 400 cases in which their serum had been used with a mortality of only 25 per cent, while in the cases most promptly treated, the death rate was considerably lower."

To relieve pressure and symptoms in tuberculous meningitis, lumbar puncture repeated every day or two is palliative only. There is no cure for this disease.

To obtain anesthesia of the lower limbs and trunk ten drops of a 2 per cent cocaine solution may be injected into the spinal canal. In cases of inaccessible cerebral tumor or fracture at the base of skull the symptoms of cerebral compression may be promptly relieved for a time by withdrawing from 15 to 20 cc. of the fluid. The same procedure may alleviate the coma or convulsions of uremia. The antitoxin of tetanus is more advantageously introduced by this route than by hypodermic. In dementia paralytica the injection of salvarsanized serum has not so far caused any noteworthy number of cures and is possibly of no value.

For laboratory examination the fluid should be collected in a test tube that has been thoroughly cleansed with alcohol and ether. Normally cerebro spinal fluid is clear and colorless; it has a specific gravity of 1005 to 1007, contains .1 per cent of albumin and a substance that reduces Fehling's solution. Microscopic examination reveals only a few leucocytes and endothelial cells. The method recommended and used by the writer in more than one hundred cases is to centrifuge 5

cc. of the fluid for twenty minutes, then invert the tube, pouring out all of the contents except three or four drops adhering to the sides of the pointed end. This is removed by means of a fine capillary pipette and three equal sized small drops so obtained are deposited carefully upon a clean cover slip. When dry eight drops of Jenner's stain are added and fifteen seconds later several drops of distilled water. At the end of one minute the cover slip is bathed in water, dried and mounted on slide with balsam. Each one of the stained drops can be now examined with the one-sixth-inch lens and the number of leucocytes in such a field counted. The slide can be labeled and filed for future reference.

By spinal puncture one may make the diagnosis of meningitis positive and be able to differentiate the several forms of meningitis. The more common sources of acute simple meningitis (not epidemic) are suppuration in the ears, nose or eyes, head injuries and systemic infections such as typhoid, influenza, pneumonia and infective endocarditis. Streptococcus or staphylococcus meningitis is many times a complication of middle ear, mastoid or sinus disease. In all the above cases the fluid is usually turbid and when allowed to stand a considerable deposit settles in the tube. An examination of the stained sediment will show polymorphs predominating.

Acute cerebro spinal meningitis may be distinguished by the diplococcus intracellularis; the fluid is cloudy and contains an excess of polymorphs. In tuberculous meningitis the fluid is perfectly clear or slightly opalescent; lymphocytes are increased and a film usually reveals the bacilli.

The stained centrifuged fluid of a patient afflicted with general paralysis or cerebro spinal syphilis is distinguished by a decided lymphocytosis. Hence the value of this test in psychiatry. Generally the increase of lymphocytes is in direct proportion to the distinctness of the physical signs. If there are thirty or more lymphocytes in a one-sixth field, it is extremely significant. In a well developed case of dementia paralytica the cells are usually so numerous as to be uncountable. A positive Wassermann of the spinal fluid and blood serum will corroborate other findings. If the specimen is contaminated by blood due to faulty technique it will be faintly cloudy and worthless unless the lymphocytes are abundant.

The pressure with which the spinal fluid escapes is apparently not of much importance, contrary to common opinion, since it varies according to posture even normally. There is increased pressure in most cases of meningitis and frequently in paresis.

Mention might be made of four cases in my own experience outside of psychiatry where lumbar puncture cleared up the diagnosis:

Case 1—A colored boy aged two years; dull and listless for two days; one attack of vomiting; temperature 100 degrees F.; pulse slow and irregular; fontanelle slightly bulging; some rigidity of back but no convulsions. Puncture obtained cloudy fluid in which there were abundant polymorphs and the bacteria of acute cerebro spinal meningitis.

Case 2—A poorly nourished baby of seventeen months and about seven months development at the age of six months gradually exhibited retraction of head and marked cervical opisthotonous with occasional vomiting and moderate elevation of temperature, the last two symptoms recurring at intervals of several days or weeks. Blindness followed unassociated with optic neuritis; also deafness, loss of speech and defective intelligence. On account of the paralysis, tube feeding was required. Puncture found clear fluid, slightly increased cells mostly polymorphs and the diplococcus of Weichselbaum.

Case 3—An excellently nourished bottle-fed baby of six months brought for treatment on account of fretfulness, occasional vomiting and tendency for weight to remain stationary for three or four weeks. In spite of all changes in formula, vomit-

ing occurred at times and the baby began to rapidly lose in weight. Lungs found to be normal. About one month later a peculiar sharp cry was noted now and then at night and also very slight rigidity of back but no extension of head. Puncture revealed clear fluid and decided lymphocytosis; tubercle bacilli could not be detected but were probably present.

Case 4—A colored boy of ten years complaining of pain and marked tenderness of abdomen; ill about two weeks; history of cough; headache; some fever; faint residual rales over upper lobe right lung; pulse rather slow; no vomiting; slight rigidity of the abdomen and considerable of the back; faint extension of the head; both thighs flexed. Puncture discovered thick sero-purulent fluid and one inch of pus settled in test tube. The microscope determined polymorphs and pneumococci.

The above cases tend to illustrate the worth of lumbar puncture for diagnosis.

The therapeutic value is very small except in one disease, epidemic cerebro spinal meningitis. However, the advancement of serum therapy is rapid and more may be expected.

MISCELLANEOUS

The Verumontanum, with Special Reference to the Sinus Pocularis: Its Anatomy, Histology and Physiology.

A. G. Rytina, of the James Buchanan Brady Urological Institute, Johns Hopkins Hospital, Baltimore, Md.

Rytina studies carefully serial sections of the verumontanum and its immediate neighborhood. He finds that the verumontanum is an elevation formed by the upward projection of the sinus pocularis covered by the mucous membrane of the posterior urethra. The verumontanum is made up almost entirely of the sinus pocularis together with the ejaculatory ducts and occasionally a few prostatic ducts. It is not a cavernous structure, indeed the blood supply is not any greater than the surrounding tissue, and therefore its function cannot be of an erectile kind. The ejaculatory ducts may open into the sinus pocularis, as this occured in one of Rytina's cases. The author agrees with Walker as to the physiology of the verumontanum and sinus pocularis, viz. that the veru serves to elevate the ejaculatory ducts to a central position in the urethra, where the spermatozoa are quickly mixed with the numerous jets of prostatic secretion, and that the sinus provides a secretion helping to make up the semen—but adds that complete excision of both structures does not interfere with normal sexual function.—Journal of Urology.

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Soup Bone Implants.

Several cases of use of "soup bone" prosthesis for skull defects and injuries are reported by W. W. Babcock, Philadelphia (Journal A. M. A., Aug. 4, 1917). In the cases reported the prosthesis was obtained by imbedding under the scalp or the skin of the face portions of the beef or mutton bone removed from the hospital "soup kettle." The findings were interesting as being contrary to considerable experimental evidence and Babcock says that at any rate we can record the interesting clinical evidence that large plates of dead foreign bone show no external evidence of absorption or weakening two years after implantation under the scalp. He enumerates the various materials that have been used for remedying skull defects. Paraffin and cork certainly should not be used. Tibial transplants have the advantage of being well tolerated, but they require an additional operation with its added risk. The soup bone implant has not only the advantages of convenient accessibility, mobility, and sufficient size, but apparently produces, when imbedded, little or no irritation to the adjoining tissue, and seems to give a strong and perhaps permanent close. It has the advantage of containing less animal matter than a fresh bone and he prefers the scapula as the best bone to be used and describes his method of inserting it under the skin and periosteum. Soup bone prosthesis seems to deserve trial for correction of deformities of the face and jaw where fat implantation is not feasible. The author has used it three times for correction of saddle nose, with good results in at least two cases. The cases are reported.

THE JOURNAL
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W. E. McVEY, M.D. - - - - - Editor

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Just a Little More Pep.

Only those who belong to live county societies and attend them regularly fully appreciate the possible usefulness of these organizations to the profession. The county society should be something more than a scientific body for the discussion of medical topics. There are a great many points in the relation of the profession to the State and to the people that should be determined by the county society. In some of the counties of Kansas the county medical work is controlled and is very thoroughly and satisfactorily taken care of by the society.

There is a state law prohibiting the adoption of fee bills by such organizations, but it may be given another function of equally as much importance to the financial side of the practice of medicine. Its influence may be of inestimable value in the collections of accounts. It will not be necessary to burden the officers with additional duties, but form letters should be prepared with the usual letter head form and the addition of "———— County Society Credit and Collection Bureau." These letters should have the name of the society and the signature of the secretary at the bottom. The first letter should be a kindly solicitous appeal for settlement. The second letter should intimate the probable inability of the debtor to pay all at once and should enclose a blank note providing for small monthly payments. These letters should be mailed with statements of account by the various members of the society to their delinquent patrons. If in a reasonable time after the second one is sent no response comes, the names of such delinquents should be reported to the secretary and by him reported at the next meeting of the society and an investigation made as to their ability to pay. If they are found to be really unable to pay they should be cared for as it has always been the custom of physicians to care for the indigent sick. If it is found that they are able but unwilling to pay, then each member will be warned beforehand. If he chooses to render them any service, it is always well to bear in mind that the man who refuses to pay Dr. Jones will refuse to pay Dr. Smith when his indebtedness reaches a point where it is worth while.

We do not believe in any restriction of a physician in what he believes to be his duty to the sick, but we do believe that any one of us is justified in demanding cash payments from those who have shown their unwillingness to pay for the services of a confrere.

But in order that this or any other beneficiary function of a society may be successful it is essential that it have regular meetings and that those meetings be regularly attended. It is quite important, therefore, to make these meetings of sufficient interest to satisfy the members. In a good many counties the society interest is kept up by programs consisting of papers and reports of cases and discussions by local men, but in others this seems insufficient. It is for this reason that the Lecture Bureau is being conducted, so that men from other parts of the state may be secured for as many of the meetings as may be desired. Quite a number of the societies have found these lectures of much value in bringing up the attendance.

If good programs are arranged and due notices of these with the time and place

of meeting are sent to all the members and all those eligible to membership, there should be, and there usually will be, a good attendance.

But after all the whole thing depends upon the secretary. A poor and inefficient secretary always quits with a poor society, no matter how good it was when he began his term of office.

If your society does not have regular meetings, if the programs are uninteresting and unreliable, if only a part of the eligible men in the county are members, and if the members do not pay their dues promptly, get a secretary with a little more pep.

———R———

Our Part.

It will be interesting to watch the evidences of progress in the care of the soldiers' health as the great cantonments are completed and fully inhabited. Such large gatherings of men in camp will test the efficiency of the sanitary engineering and hygienic regulations. We believe it is safe to predict that this will be the most elaborate demonstration of the efficiency of health conservation measures that this or any other country has ever known. Certainly the medical contingent of the army will leave nothing undone that may protect these great aggregations of men against the ravages of contagions and infections.

The success of the efforts of the medical department must depend, however, very largely upon the co-operation of the various military commanders. Past experience should have taught them, and no doubt has taught them, the importance of such co-operation. There will be no repetition of the epidemics that disgraced this country during the Spanish-American War. A hundred millions of people are watching those in authority with critical eyes and it will be a sad day for him who, by lack of foresight or neglect of duty, permits the invasion of one of these camps by a preventable disease. He who will be responsible for such a calamity will be relentlessly traced and certainly punished by a just though vengeful people.

Thanks to the liberty of the American press, the people had the opportunity of comparing the results of our laxity with those of Japanese efficiency, and will never again tolerate such lack of consideration for the life and health of the army. But there is no cause for uneasiness. The thoroughness and completeness with which these great cantonments are being prepared to safeguard the health and morals of our soldiers is a guarantee that our legislative bodies will never be called upon to investigate such a condition as that which disgraced this country during our troubles with Spain. We see nothing to cause alarm in the report that "a camp has been removed from California to North Carolina because the State Board of Health required proper sewage for the camp," referred to in a communication from *The Prodigal.* The fact that the camp was moved when the sewage was pronounced inadequate is ample evidence that those in authority were fully alive to their responsibility for the health of their soldiers and appreciative of the dangers of maintaining a camp at that place even for a sufficient time to construct a proper sewage system.

Those who have been able to watch the evolution of the great cantonment at Fort Riley, where 70,000 men are soon to be assembled and trained; those who have witnessed the visions of great sanitarians materialize in a perfect and wholesome water supply, an efficient sewage system, sanitary bath houses and toilets, sanitary kitchens, sanitary barracks, laundries, bakeries, etc.; those, more than the ordinary citizen, are able to realize the vastness of the work that has been undertaken and are able to fully appreciate the importance given to sanitary methods by the military heads of the various sections of the army.

It is a great triumph for the medical profession. It is the culmination of years of study and teaching, of research and experimentation, of animal test and clinical application, in one great clinical dem-

onstration of the principles which have been evolved.

But after all this is only a preliminary step in the part which the medical profession will play in this war. The sick soldier and the wounded soldier, in the concentration camps and in the battle field, will have the advantage of all the experience and all the skill available to any man at this period of our progress. The proudest potentate or the wealthiest magnate could have no more or no better. Medical men of special attainments are being assembled and grouped according to their particular lines of work. There is a section of orthopedic surgeons, a section of neurologists, a section of oral surgeons, ophthalmologists and oto-laryngologists, a section of those skilled in brain surgery, and there is now being trained for service a large group of roentgenologists. Men specially trained will be provided to meet every emergency that may arise.

Thus will the medical profession play its part, a humanitarian and an economic part. The economic importance of the services of one of these sections is shown by the fact that from 30 to 40 per cent of the casualties of the present war require special orthopedic methods and that from 70 to 75 per cent of these patients when treated by these methods can be restored to military usefulness.

———R———

Higher Rank for Medical Officers.

The reasons urged in support of Senator Owen's amendment to the National Defense Act, fixing the ratio of medical officers in the various grades of the army and giving them increased rank, ought to be convincing. The purpose of the amendment is to give such authority to medical officers as will remove from the jurisdiction of line officers questions relating to army hygiene. That authority should be so vested is urged by the medical section of the Council of National Defense and by the medical profession generally.

The evidence submitted to the Senate—much of it in the form of government reports—goes to show that much of the disease in the army during the Spanish War was due to the decisions of officers of the line who were not bound to defer to the knowledge of officers of the medical corps. Camps were located without regard to protests of medical officers for the reason that no such officer held a rank high enough to give commands rather than advice. Of two hundred thousand enlisted men in the war, twenty thousand, it is pointed out, developed typhoid fever.

Officers are commissioned in the different arms of the service because of their technical knowledge of the particular arm to which they are assigned. Infantry officers do not command in the artillery nor engineer officers in the cavalry. Surely the same logic ought to reserve to medical officers sole authority in sanitation. If the amendment of Senator Owen confers such authority without infringing the proper military authority of command in the line, it ought to be adopted.—Kansas City Star.

———R———

Petition in Favor of a Selective Draft of Physicians.

The medical section of the New York State Committee on National Defense has prepared, and is circulating the following petition. Copies of the same may be obtained by addressing the committee at 25 West 45th Street, New York City:

"Whereas, A critical analysis, based upon a classification of physicians by the recent New York State Special Medical Census, when applied to the personnel resident in this state of the Medical Officers' Reserve Corps of the Army, has clearly demonstrated that the volunteer system of recruiting this personnel, now and hitherto in effect, has failed to secure an adequate number of physicians available and desirable for active army medical service; and

"Whereas, Such analysis has likewise clearly demonstrated that the volunteer system has failed to exclude from this personnel physicians unfit for active military duty, by reason of age, physical disability, family obligations or many de-

pendents; and

"Whereas, The volunteer system has also failed to exclude from this personnel physicians whose services at home are essential to the public welfare in health departments, hospitals, medical colleges and isolated communities; and

"Whereas, It has further failed to adjust equitably, in age or geographic or population distribution, the burden of military service upon the medical profession of the United States; and

"Whereas, It has by these failures caused injury to the individual, to the community, to the medical profession and to the public; and

"Whereas, The volunteer system puts an undesirable and embarassing burden of decision upon those physicians whose services are most needed at home; and

"Whereas, There exists no provision in the present draft law for drafting physicians as medical officers, but only as private soldiers; and

"Whereas, The existing general draft law affects only those physicians who are of an age of maximum efficiency as soldiers and fails to affect many of those who are of an age most suitable for medical officers; and

"Whereas, The justice, wisdom and effectiveness of the selective draft principle have been recognized by Congress in raising a strong army from our civilian population; and

"Whereas, We are firmly convinced that a selective draft of physicians for military purposes, based upon a classification similar to that of the New York State Medical Census and designed specifically to exempt those unfit by reason of age, physical disability or many dependents, as well as those necessary for the maintenance of public health, hospital and community service and medical education, will be alike just to the individual, to the community and to the nation, and that it will secure to the medical service of the national defense those best fitted for its uses while it retains at home those most needed in the community; and

"Whereas, We, the undersigned physicians, graduates of standard medical colleges and duly licensed to practice medicine in the State of New York, mindful of our duty to our communities and state, as well as to the nation, are in favor of a selective draft of physicians between the ages of 21 and 45 years, for medical officers, in numbers sufficient for the nation's military needs, based upon a classification by census, which shall exempt those unfit for military purposes and those necessary for the community at home; and

"Whereas, We justly claim that such a selective draft of physicians when and if instituted shall and of right ought to exempt graduate physicians, students of medicine and pre-medical students in the General Draft Law age group from further liability to the provisions of the existing General Draft Law so long as they retain medical status; now, therefore,

"We, the undersigned physicians as aforesaid, do hereby petition the Congress of the United States for legislation enabling the President to direct the institution of such a classification and to proclaim and order such a selective draft."—Bulletin, Department of Health.

Some Topics.

By The Prodigal.

In the year 1889 Kansas convened an extra session of her legislature to appoint, and did appoint, a state veterinarian at a salary of $3,500 a year, and the last Kansas Senate had voted to blot out the State Board of Health, whose secretary received $2,000 a year.

The same year the Florida legislature was convened in extra session by the governor of the state for the sole purpose of establishing a State Board of Health, passed a law providing for such a board, giving it ample powers and a fund of $50,000.

It is true that Florida had an epidemic of yellow fever, but the probability is that there were more deaths from preventable diseases in Kansas during the same year

than from yellow fever in Florida.

Kansas did not need the jolt that Florida got to *finally* set her house in order. But if the statements in the daily papers are correct, our government officials are slow to learn. It is said that a camp, or army cantonment, has been removed from California to North Carolina because the State Board of Health required proper sewage for the camp.

This provision for the soldiers' health is in keeping with official action at Chickamauga during the Spanish-American War, when so many of the soldiers had typhoid fever and there was such a high mortality. Red tape official do-nothingness prevented the intelligent physicians from carrying out common sense sanitary measures which would have minimized the number of cases and the great death roll. It is to be hoped that politics will be reduced to the minimum during the present war and scientific medical hygienists, physicians and surgeons given full control of the health of our soldier boys.

The governmental control, care and treatment of our army, in the Spanish-American War, from a medical and hygienic point of view, was and is a living and standing disgrace to us as a nation when the sickness and deaths of our soldiers are compared with those of the Japanese War a few years later. The medical department must have complete control. It must be unhampered in every way. It must have a free hand and then there will not be a scintilla of doubt as to the good results.

It is a great pleasure to note the loyalty of so many Kansas boys to the cause of human freedom, but the cause for the display is a disgrace to the name of man. Strange as it may appear to some persons, I think it is the strongest evidence or proof that the world is getting better. It is evidence by negation. Since I can remember, these proofs have been "a-bornin'." By the Civil War, African slavery in the United States was negatived—not permitted to continue. That was and is evidence of betterment to me. The Spanish-American War to prevent Spain from herding men, women and children in corrals and starving them to death, is to me evidence of a higher and better humanity. Again, paying Spain $20,000,000 when no legal obligation rested upon us—but a moral obligation—set an example to the world which has leavened the lump of human conscience. And now the principle of humanity of "doing not to others what you would not have them do unto you" is on a great world trial. This is surely world evolution. It shows what the world will no longer permit in wrong doing and is therefore all for world betterment.

Statistics tell us that at the present time the average length of life in Sweden is 52 years, Massachusetts 46 years, and in India 23 years; that for every dollar we spend for elementary education we spend four dollars for liquor and two dollars for tobacco and drugs; that for every twenty boys born there are twenty-one girls born.

———R———

Hospital Internes and Medical Students May Be Discharged.

The Provost Marshal General has sent the following to governors of all States:

The President prescribes the following supplemental regulations governing the execution of the selective-service law.

First—Hospital internes who are graduates of well recognized medical schools or medical students in their fourth, third, or second year in any well recognized medical school who have not been called by a local board may enlist in the Enlisted Reserve Corps provided for by Section 55 of the National Defense Act under regulations to be issued by the Surgeon General, and if they are thereafter called by a local board they may be discharged on proper claim presented on the ground that they are in the military service of the United States.

MAY APPLY FOR DISCHARGE.

Second—A hospital interne who is a graduate of a well recognized medical school or a medical student in his fourth,

third, or second year in any well recognized medical school, who has been called by a local board and physically examined and accepted and by or in behalf of whom no claim for exemption or discharge is pending, and who has not been ordered to military duty, may apply to the Surgeon General of the Army to be ordered to report at once to a local board for military duty and thus be inducted into the military service of the United States, immediately thereupon to be discharged from the National Army for the purpose of enlisting in the Enlisted Reserve Corps of the Medical Department. With every such request must be inclosed a copy of the order of the local board calling him to report for physical examination (Form 103), affidavit evidence of the status of the applicant as a medical student or interne, and an engagement to enlist in the Enlisted Reserve Corps of the Medical Department.

WILL NOT BE SENT TO CAMP.

Upon receipt of such application with the named inclosures the Surgeon General will forward the case to the Adjutant General with his recommendations. Thereupon the Adjutant General may issue an order to such interne or medical student to report to his local board for military duty on a specified date, in person or by mail or telegraph, as seems most desirable. This order may issue regardless of the person's order of liability for military service. From and after the date so specified such person shall be in the military service of the United States. He shall not be sent by the local board to a mobilization camp, but shall remain awaiting the orders of the Adjutant General of the Army. The Adjutant General may forthwith issue an order discharging such person from the military service for the convenience of the Government.

Three official copies of the discharge order should be sent at once by the Adjutant General to the local board. Upon receipt of these orders the local board should enter the name of the man discharged on Form 164A and forward Form 164A, together with two of the certified copies of the order of discharge, to the mobilization camp to which it furnishes men. The authorities at the mobilization camp will make the necessary entries to complete Form 164A, and will thereupon give the local board credit on its net quota for one drafted man.—Official Bulletin, Aug. 30.

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Little Pure Zinc Oxide on the Market.

Examinations made by the Bureau of Chemistry of the United States Department of Agriculture show that very little zinc oxide on the market in the United States complies with the standards of the U. S. Pharmacopoeia. Nearly all of the samples examined contained an excessive amount of lead. The samples were labeled "Not U. S. P.—Containing Small Quantities of Lead," and therefore complied with the Food and Drugs Act. The labels on the packages in most instances will probably come to the attention of the druggists, but not to the attention of physicians. The medical profession will therefore not be advised as to whether or not zzinc oxide preparations are made from standard ingredients. Conditions may arise where a zinc oxide preparation contaminated with lead may do injury. A limited supply of U. S. P. zinc oxide is available and physicians may protect themselves and their patients from possible injury by calling for such material on their prescriptions.

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New and Nonofficial Remedies.

Neodiarsenol. — Neodiarsenol has the composition, physical and chemical properties and action, uses and dosage as given for neosalvarsan in New and Nonofficial Remedies, 1917. Neodiarsenol is supplied in ampules containing, respectively, 0.15, 0.3, 0.45, 0.6, 0.75 and 0.9 Gm. neodiarsenol. Neodiarsenol is accepted for New and Nonofficial Remedies, as the available supply of neosalvarsan seems to be insufficient to meet the demand, and this preparation conforms to the rules of the Council. Neodiarsenol is made in Canada

under a license issued by the Commissioner of Patents of Canada. The Farbwerke-Hoechst Company holds the sale of neodiarsenol in the United States an infringement of its rights, and has stated that all violations of its rights will be prosecuted. The Diarsenol Company, Ltd., Toronto, Canada. (Jour. A. M. A., Aug. 4, 1917, p. 383.)

Gastron.—A solution of the gastric tissue juice obtained by direct extraction from the mucosa of the fresh stomach of the pig. It contains 25 per cent by weight of glycerin, 0.25 per cent absolute hydrochloric acid, and 1 Cc. is capable of dissolving 200 Gm. of coagulated egg albumin. Gastron is designed for use in disorders of gastric function. Fairchild Bros. & Foster, New York. (Jour. A. M. A., Aug. 25, 1917, p. 645.)

———R———

Propaganda for Reform.

Standardization of Serums and Vaccines.—The misunderstandings and difficulties as regards the standardization of serums and vaccines are pointed out by G. W. McCoy, director of the U. S. Hygienic Laboratory. So far legal standards have been formulated only for diphtheria and tetanus antitoxin. A tentative standard for antityphoid vaccine has been devised. This completes the list of standardized biologic products. Though not standardizable, vaccine virus and antirabic virus are tested for potency in the process of manufacture. McCoy reviews the work which has been done in the attempt to work out and standardize other biologic products, and brings out the many difficulties which are in the way. (Jour. A. M. A., Aug. 4, 1917, p. 378.)

Bile, A Cholagogue.—The view that bile absorbed from the alimentary tract increases the secretion of bile, and thus acts as a true cholagogue, seems to be established. The feeding of fresh bile to bile fistula dogs causes an almost constant cholagogue action. The bile of the dog, sheep and pig all have this effect, and ox bile seems to be the most active cholagogue. Of the bile constituents, glycocholic acid has a moderate cholagogue effect, but usually causes a great drop in bile pigment output in a bile fistula dog; taurocholic acid has a strong cholagogue action, but little inhibiting effect on bile pigment secretion; the bile fat has no influence on bile flow, but causes inhibition of bile pigment secretion; cholic acid has little effect on bile flow but may decrease the bile pigment output. (Jour. A. M. A., Aug. 4, 1917, p. 386.)

Administration of Agar.—O. H. Brown and W. O. Sweek favor the administration of agar in the form of a hot lemonade, chocolate or bouillon. For the preparation of a lemonade they direct to take two heaping tablespoonfuls of the agar powder, flakes or shreds; add to one quart of water, and boil till the agar is thoroughly liquified; sweeten and add juice of one lemon; then drink the entire quart while hot. They suggest that the quart of hot agar lemonade may be prepared in the morning, poured into a vacuum bottle, and taken leisurely during the day. They find that patients prefer to make use of orange, grapefruit, vanilla, maple or other flavoring in place of the lemon. (Jour. A. M. A., Aug. 11, 1917, p. 467.)

Trimethol.—The Council on Pharmacy and Chemistry concludes that the claims for Trimethol are unsupported by acceptable evidence, and has declared Trimethol and the pharmaceutical preparations said to contain it—Trimethol Syrup, Trimethol Capsules and Trimethol Tablets—sold by Thos. Leaming & Co., New York, ineligible for New and Nonofficial Remedies. The Trimethol preparations are advertised for use in all conditions dependent on intestinal putrefaction, and some of the advertising claims give to "Trimethol" the scope of a panacea. A request for Trimethol having been refused by the manufacturers, the Council's bacteriologist examined one of the pharmaceutical preparations said to contain it. Although the preparation was found to be a germicide, the examination did not indicate that Trimethol had any remarkable potency or other properties suggesting that it pos-

sessed special therapeutic value. (Jour. A. M. A., Aug. 11, 1917, p. 485.)

Iodine Ointments.—An examination of iodine ointments made in the A. M. A. Chemical Laboratory by L. E. Warren demonstrated that when made according to the method of the U. S. Pharmacopoeia (dissolving iodine in potassium iodide and glycerine and then incorporating with benzoinated lard), about 20 per cent of the free iodine used combines with the ointment base. On standing for a month a further quantity of 5 per cent goes into combination, and after this no further loss of iodine occurs. The composition of iodine ointment, U. S. P., after a month or more is approximately: free iodine, 3 per cent; iodine combined with fat, 1 per cent; potassium iodide, 4 per cent; benzoinated lard (containing combined iodine), 80 per cent. The U. S. Pharmacopoeia requirement that iodine ointment shall be freshly prepared appears to be unnecessary. It was also found that if iodine ointment is made without the addition of potassium iodide, practically all of the free iodine enters into combination with the fat. (Am. Jour. Pharm., Aug., 1917, p. 339.)

Some Miscellaneous Nostrums. — Limestone Phosphate is devoid of limestone. It is a mixture of sodium bicarbonate and sodium acid phosphate, which when dissolved in water yields the ordinary sodium phosphate. Parmint, according to the advertising, should be used for the treatment of catarrhal deafness, head noises, catarrh of the stomach, catarrh of the bowels, loss of smell, lung trouble, asthma, bronchitis, etc. Parmint appears to be an alcoholic solution containing sugar, glycerin, a small amount of chloroform and a mixture of volatile oils with oil of anise predominating. Varnesis is a "rheumatism cure" which, when analyzed some time ago, was found to contain less than 1 per cent vegetable extractives chiefly derived from emodin-yielding drugs and capsicum. Taken according to directions, its user consumes as much alcohol as he would obtain from the consumption of a half pint of raw whisky every four and one-half days. Fruitatives is sold under a meaningless statement of composition and with claims that suggest it to be a cure for paralysis, consumption, rheumatism, etc. It is probable that Fruitatives possesses no virtues not found in aloin, belladonna and strychnine pills. (Jour. A. M. A., Aug. 18, 1917, p. 582.)

Serum Treatment of Pneumonia.—Rufus Cole reports that one-third of the cases of pneumonia are due to Type I pneumococci, one-third to Type II pneumococci, from 10 to 15 per cent to Type III, and the remainder to pneumococci belonging to the fourth group. The mortality from infection with Type I and Type II are of average severity with a mortality of from 25 to 30 per cent; those from Type III are severe and more than one-half of the patients die from this infection, while the mortality from Group IV is only about 10 to 15 per cent. Antipneumococcic serum is efficient only in infection from Type I, and Cole has come to the conclusion that the serum should be administered only after it has been determined that the infection is due to this type. He reports that certain commercial serums have been found inefficient or without effect against Type I infection. He also reports his experience with commercial serums which were inefficient or inert. It is expected that the U. S. Public Health Service will soon establish a method for the standardization of antipneumococcic serum. (Jour. A. M. A., Aug. 18, 1917, p. 505.)

Some Miscellaneous Nostrums.—Newspapers advertise Swift's Sure Specific for the treatment of "rheumatism" and "impure blood." The advertising matter sent out by its promoters recommends "S.S.S." for the self-treatment of syphilis. No information is offered in regard to the composition of "S.S.S." except that it contains 15 per cent alcohol and the claim that it is "made from purely vegetable ingredients." Kaufmann's Sulphur Bitters are claimed to contain sulphur, gentian, wild cherry, aloes, eupatorium, "Tanacetum," balmony, podophyllum, "Senna Indica," calamus. It was sold as a remedy

for scrofula, catarrh, salt rheum, rheumatism, etc., but the government declared these curative claims false and fraudulent. (Jour. A. M. A., Aug. 25, 1917, p. 663.)

Treatment With Vaccines.—The conditions—self-limited infections and chronic infectious processes — in which vaccine treatment has been employed make it exceedingly difficult to determine if vaccines are of value. As pointed out by J. P. Leake, of the U. S. Public Health Service, whenever the use of vaccines in a certain disease has been carefully controlled, its use has been found of little value. This is true of whooping cough, typhoid fever, and gonorrheal vulvovaginitis, and probably in pyorrhea alveolaris. As for the strikingly favorable results in individual instances which are reported by vaccine enthusiasts and repeated in advertisements, these may all be matched by equally brilliant results in cases not treated with vaccines. (Jour. A. M. A., Aug. 25, 1917, p. 648.)

Nasopharyngeal Disinfection by Hypochlorites.—While the practical sterilization of infected wounds by means of hypochlorites has been effected, the sterilization of the nose and throat is far more difficult, especially in the case of diphtheria and meningococcus carriers. Encouraging results from the use of a hypochlorite substitute, dichloramine-T, have been reported, but these require confirmation. (Jour. A. M. A., Aug. 25, 1917, p. 651.)

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Bacterial Vaccine Therapy

J. P. Leake, Washington, D. C. (Journal A. M. A., Aug. 25, 1917), says that doubts are arising as to vaccine therapy, although a few years ago the profession was about to grant it a more or less definite place in therapeutics, at least as regards autogenous vaccines. One must clearly differentiate vaccine therapy and prophylaxis. The value of typhoid vaccine as a preventive is unquestioned, but the immunity thus obtained, if doses small enough to be safe for the sick patient are given, may not be sufficient in medical treatment. As between stock in autogenous vaccines in therapeutics, there is no question but that the reports favor the latter. They are practically always fresher but the vaccines made by the laboratories under federal license are, however, safer than the autogenous ones. If the number of these vaccines on the market were an index of their efficiency, one would say they were of some value. In most of the reports in the literature it is obvious that the tendency is to report favorable results while others are less likely to be published and controls are lacking. Largely from an uncontrolled but remarkably uniform experience, we have come to think that staphylococcus vaccines are of benefit when proper surgical relief is also given. It is hoped that the various military hospitals of the countries at war will enable studies to be made on a sufficiently large and complete scale to justify more general and perfect conclusions. Leake pleads, therefore, not for abandonment of therapeutic inoculations but for reliable data to guide our future use of them. He quotes two carefully controlled but limited reports: one from Whittington of the British army of their use in typhoid fever, and the other that of von Sholly, Blum and Smith on the use of pertussis vaccine in whooping cough, in the Journal of May 19. In the former the controls did better than the vaccine treated cases, and in the latter the pertussis vaccine showed no superiority over the routine treatments. If vaccines are to be generally used, the bulk of them will have to be stock vaccines, and their possible dangers and other disadvantages must be considered. Negative results by one set of authors should not discredit the whole method of treatment. We should have the details and, above all, proper controls.

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Dr. A. B. Jeffrey, who served in one of the base hospitals in England for a period of six months, gave the Shawnee County Society a very interesting account of the work there and the methods of treatment usually followed.

APPLICATION FOR APPOINTMENT IN THE MEDICAL RESERVE CORPS, U. S. ARMY.

....., ...

....., 191.....

To the SURGEON GENERAL, U. S. Army,
Washington, D. C.

Sir: I hereby make application to be examined for appointment in the Medical Reserve Corps, U. S. Army, and inclose testimonials as to my character and habits.*

I certify that to the best of my knowledge and belief I am laboring under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required of me if appointed in the Medical Reserve Corps, U. S. Army, and that the answers given to the interrogatories below are true and correct in every respect.

I furthermore state my willingness to proceed to such point for examination as may be designated by the Surgeon General, with the understanding that the journey entailed thereby must be made at my own expense.

INTERROGATORIES.

1. What is your name in full?.....
(Including your full middle name)

2. What was the date of your birth?.....

3. Where were you born?.....
(Give state and city or county; if foreign born, give country.)

4. When and where were you naturalized?.....
(For applicants of alien birth only.)

5. Are you married or single?..... 6. Have you any minor children; if so, how many?.....

7. What is your height, in inches?..... 8. Your weight, in pounds?.....

9. Give the nature and dates of all serious sicknesses and injuries which you have suffered:

10. If either parent or brother or sister has died, state cause and age in each case:

11. Do you use intoxicating liquors or narcotics; if so, to what extent? .....

12. Have you found your health or habits to interfere with your success in civil life?.....

13. What academy, high school, college, or university have you attended? State periods of attendance from year to year, and whether you were graduated, giving date or dates of graduation:

14. Name any other educational advantages you have had, such as private tuition, foreign travel, etc.:

15. Give all literary or scientific degrees you have taken, if any, names of institutions granting them, and dates:

16. With what ancient or modern languages or branches of science are you acquainted?

*Testimonials as to character and habits from at least two reputable persons must accompany this application. Political recommendations are not necessary.

17. How many courses of lectures have you attended? Names of colleges and dates:

18. When and where were you graduated in medicine?

19. Have you been before a State examining board? If so, state when, where, and with what result.*

20. Are you a member of any State medical society? If so, give its name:

21. Have you had service in a hospital? If so, state where and in what capacity, giving inclusive dates of each kind of service:

22. What clinical experience have you had in dispensary or private practice?

23. Have you paid particular attention to any specialty in medicine; if so, what branch?

24. What opportunities for instruction or practice in operative surgery have you had?

25. Have you previously been an applicant for entry into the United States service? If so, state when, where, and with what result (if rejected state why):

26. Are you a member of the organized militia? If so, state with what organization and in what capacity:

27. Have you been in the military or naval service of the United States as cadet or otherwise? If so, give inclusive dates of service with each organization, designating it:

28. What occupation, if any, have you followed other than that of student or practitioner?

29. What is your present post office address?.....

30. What is your permanent residence?.....

(31) Signature of applicant).....

32. The correctness of all the statements made above was subscribed and sworn to by the applicant before me this .....day of....., 191.....

.....

.....

*This application must be accompanied by a certificate from the proper official that the applicant is duly registered to practice medicine in the State in which he resides.

Form 149

W. D., S. G. O.

(Revised May 3, 1917)

Application for Examination for Appointment in the Medical Reserve Corps, U. S. Army.

.....Inclosures.

Movable Kidney

W. Bartlett, St. Louis (Journal A. M. A., Aug. 25, 1917), says in the light of present knowledge the one definite and invariable indication for operation for movable kidney must be of an anatomic nature, namely intermittent hydronephrosis. All other movable kidney patients are subjects for medical treatment. Most of the earlier operations have depended on some form of suspension, as opposed to the distinctly supportive procedure he advocates. The operative technic proposed rests in principle on a common clinical observation that the movable kidney becomes the more movable as the individual's body fat disappears and the mobility decreases as the body weight is regained. With the patient lying on the left side he uses the von Bergmann incision, which bisects the angle formed by the last rib and the outer edge of the erector spinae. As soon as the abdominal cavity is opened, all the fat is removed from the inside of the posterior abdominal wall, leaving the muscles perfectly bare, the object being the ultimate formation of broad adhesions between the kidney and these denuded muscles. The fatty capsule of the kidney is divided longitudinally the entire length of the organ and caught with clamps at several points. The exposed kidney is lifted out of the abdomen while the fatty capsule is inverted over onto the pedicle and divided to a considerable extent above, so that when the kidney lies completely outside the wound edges the inverted fatty capsule occupies the position beneath its lower fold. The cut edges of the fatty capsule originally grasped by clamps are united, thus transforming the inverted structure into a ball of fat, which is usually about half the size of the kidney itself and this now forming a pedunculated flap is transposed into the space into which the kidney formerly slid, and anchored to the inner aspect of the abdominal wall directly under the lower angle of the wound by a stitch of the catgut used to unite it into one spherical mass. The posterior abdominal wall is then completely closed in layers without drainage. The operation thus accomplishes three objects: the self lubricating lining of the extra peritoneal cavity has been removed and the cavity itself below the kidney has been filled up; the bared kidney and bared muscles of the posterior abdominal wall are definitely opposed to each other for adhesions to form. The Mayos are the only surgeons who so far as Bartlett knows have made an attempt to treat movable kidney by obliterating the defect into which the organ has slid. They have done this by attaching the hepatic flexure of the colon to the lateral abdominal wall and Longyear has doubtless accomplished the same thing utilizing his "nephrocolic" ligament for immobilizing both the kidney and bowel. The after-treatment is directed to keeping the kidney at a higher level by a binder elevating the foot of the bed, etc. Forced feeding is required to aid the accumulation of fat. The patient is kept on his back for two weeks, as that is considered long enough for adhesions to form between the kidney and muscles. Bartlett has operated in this way in twenty cases. One patient died suddenly after nine days, apparently doing well, but no necropsy was obtained. The remaining nineteen patients have all been heard from and fifteen have been personally examined and satisfactory results demonstrated.

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Gastric Hemorrhage

D. C. Balfour, Rochester, Minn. (Journal A. M. A., Aug. 11, 1917), discusses the treatment, surgical and otherwise, of gastric hemorrhage which he divides into three groups: first, primary lesions in the stomach and duodenum, such as ulcer, cancer, tuberculosis, syphilis; and second, certain diseases and infections not necessarily associated with recognizable changes in the gastric mucosa. The indications for surgical treatment of a patient with single or recurring gastric bleeding due recognizably from ulcer are positive. According to the experience at Rochester to perform only gastro-enterostomy in such cases is to court recurrence of the hemor-

rhage, and excision, preferably by cautery or resection, is imperative. The management of the ulcer has been the subject of considerably controversy. As a single ulcer is rarely fatal, the margin of safety usually allows delay until clotting can take place and death occurs only from repeated bleedings at comparatively short intervals. Recurrence of bleeding, therefore, after a serious hemorrhage is more than enough to indicate operating at once rather than risk further delay. In repeated continuous small hemorrhages transfusion has been found valuable not only in controlling the bleeding but in adding to the safety of future operations. In the second group of cases without a surgical lesion, a variety of diseases are to be considered: (1) those attended with recognizable changes in the liver or spleen, such as cirrhosis and splenic anemic anemia; (2) cases in which a chronic infective focus, like appendicitis or gallbladder disease, is responsible; (3) a group including in the main such acute infections as typhoid, pneumonia, etc., in which no changes can be demonstrated either at necropsy or operation, and cases of "gastrostaxis" of Hale White. The diagnosis is not easy and the difficulty is exaggerated by the fact that in many conditions, such as those mentioned above of the appendix, gallbladder, etc., there occur digestive disturbances which can easily be interpreted as due to gastric ulcer and may be the cause of unnecessary operations. The close association of the spleen and liver in normal physiology and anatomy, and in disease processes, calls for the careful consideration of the spleen wherever the portal circulation is involved. The spleen or liver, or both, may be responsible for gastric hemorrhage without themselves exhibiting any other symptom of disease. The treatment by splenectomy of moderately advanced hepatic cirrhosis is yet in the experimental stage, and Balfour does not feel justified in drawing conclusions from the operations performed. Nevertheless he says there appears to be a definite group of so-called primary hepatic cirrhoses due to toxins originating in or elaborated in the spleen. So in those cases splenectomy may be indicated if the spleen is large and be looked on as probably curative. It is significant that in those cases of gastric hemorrhage with very slight erosions in the gastric mucosa, microorganisms may be obtained from these erosions and also from the spleen, and it has been shown that certain encapsulated bacilli will cause gastric and intestinal hemorrhages. Though differing in certain respects they are alike in having the power to produce specific effects on blood vessels and changes in the blood itself. The spleen must also be recognized as a positive causative factor not only of liver changes but directly or indirectly of gastric bleeding. The group of cases where there is an obvious focus of infection includes cholecystitis, pancreatitis, salpingitis, tuberculosis, peritonitis and appendicitis. Gastric hemorrhage may occur and positive diagnosis be possible, but treatment as a rule is successful. The group of cases of serious hemorrhage without demonstrable cause has been the subject of much controversy. Unless the primary cause is found surgical treatment is not clearly indicated and the same is true regarding such acute infections as typhoid, pneumonia, etc. There are several facts that strongly suggest that gastric hemorrhage occurs through the same channel in all, namely, the portal circulation. It is not impossible that these focal infections produce changes in the liver tending to hepatic cirrhosis, and it would seem also possible the resistance of the gastric mucosa can be thus reduced to permit the bacteria, always present, to set up these troubles. The proof that a gastric hemorrhage has taken place is essential and the determination and eradication of the original cause also, whether it is a chronic surgical lesion in the stomach or an extrinsic focus. The general indication of surgical treatment is to operate in the interval. The possibility that many of the extrinsic causes are toxic in nature should be recognized, and that the infection takes place by means of the portal circulation. Hence the liver is of

first importance in these heretofore unexplained hemorrhages, and the spleen is also probably an important factor.

———R———

Exophthalmic Goiter

Among the total 2,169 operations for goiter performed by G. W. Crile and his associates and reported on in the Journal A. M. A., Aug. 25, 1917, 1,020 have been for exophthalmic goiter. This suggests the query how were the cases of exophthalmic goiter differentiated. Crile answers this: They class as exophthalmic goiter every case in which, at the time of operation, there are symptoms of increased basic metabolism not due to any current exciting cause, and in which these symptoms are relieved or cured by diminishing thyroid activity. In their cases they found no normal thyroid, hyperplasia being present in about 70 per cent and most of the remaining 30 per cent being adenomas, with a few colloid goiters. That hyperplasia is not a cause but a concomitant of exophthalmic goiter is shown by the number of cases of hyperplasia of the thyroid existing in the United States, only a small, almost negligible percentage of which were coexistent with exophthalmic goiter, for hyperplasia of the thyroid is incident to precnancy, to adolescence, to many infections, especially tuberculosis, and to cretinism. It is no more the cause of exophthalmic goiter than it is the cause of pregnancy. Here the analogy ends, however, for though a resection of the thyroid does not terminate pregnancy or modify the phenomenon of adolescence, it does improve or cure every case of exophthalmic goiter. How is this effected? Crile has elsewhere pointed out that any excitement of increased basic metabolism when acutely applied aggravated exophthalmic goiter, and the more intense the case the more it is affected. In other words, as the thyroid governs the rate of energy transformation, diminishing its activity, it also lessens metabolic activity. While the excitants of increased metabolism increase thyroid activity, they also cause an increased output of epinephrin, and the symptoms of exophthalmic goiter are identical with those produced by combined administration of epinephrin and thyroid extract plus those due to the deterioration produced by the disease in certain organs such as the heart, the brain and the liver. How shall we decide which symptoms are due to the suprarenals and which to the thyroid? While epinephrin increases basic metabolism, it alone does not cause nervousness, tremor or insomnia, or lower the thresholds of the brain. These are caused by the thyroid secretion and these two groups of symptoms with the modified function of damaged organs make up the sum total of exophthalmic goiter. Neither the suprarenal nor the thyroid has any direct communication with the external or internal environment except through the nervous system and through hormones; therefore, the kinetic drive may be modified in four ways: 1. By eliminating or diminishing the external and the internal driving stimuli. 2. By depressing the sensitiveness of the nervous system. 3. By diminishing the amount of thyroid tissue. 4. Probably by diminishing the suprarenal tissue. There are no other organs or tissues that can be controlled in like manner. Therefore, in the interrelation of the suprarenals, the thyroid and the nervous system, we find the key not only to the pathologic physiology of the exophthalmic goiter, but also to certain fundamental physiologic normal processes as well. If an individual with exophthalmic goiter could be made to hibernate like a bear he would probably come out cured; for when the driving mechanism, the brain, rests, the whole organism rests and if long enough, certain pathologic states tend to revert to the normal. If the thyroid activity is depressed by any cause, the nervous system also slows down and the power of the brain to drive the various organs of the body is diminished. Worry, grief, fear, infections, etc., are the incitants of exophthalmic goiter and neurasthenia. In many cases of pathologic drive, the diagnosis by one physician will be light exophthalmic goiter and by another neurasthe-

nia. Holding to the preceding view, in both the symptoms ought to be mitigated by excision of a part of the suprarenal tissue. This is probably indicated by the early clinical results in fave cases of neurasthenia, in which the suprarenal and the anatomically accessible thyroid tissue were excised. The course followed in these cases is reported as a suggestion and not as a recommended treatment. Crile concludes with some remarks on the operative treatment of exophthalmic goiter, recommending the utmost gentleness in handling and having the operation go to the patient rather than the patient to the operation.

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Another no-mortality-treatment for pneumonia has been reported. This treatment consists in the administration of from 1/75 to 1/50 grain of nitroglycerine every hour during the day and twice that amount every two hours during the night. In addition to this, veratrum viride is given in diminishing doses, beginning with six drops every two hours the first day. The author of this treatment states that in *about* fifty cases his mortality was nil—with the exception of a few cases which died.

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As soon as it can be obtained we will publish a list of the Kansas physicians who have been commissioned.

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Eighteen of the members of the Shawnee County Society have joined some section of the medical service with the army.

WANTED—FOR SALE—ETC.

Have joined the Medical Reserve Corps and want a man to act as locum tenens for the length of the war. Practice runs over $5,000 per year. Have full equipment including X-ray. Nothing to buy except a few drugs. County seat town of 1,500. Will make a fine proposition to well recommended man. Married man preferred. Must answer at once. Address "K," care Journal.

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Treatment of War Wounds and Sepsis.

A. BALFOUR JEFFREY, M.D., Topeka, Kan.

Read before the Shawnee County Medical Society, September 3, 1917.

The war—the great European conflict—has been responsible for some of the most striking advances in the treatment of wounds and sepsis. In previous wars the surgical history, the wounds and their manner of treatment, circled about the character of the missiles employed; the study of the missiles occupying a large part of one's time, figuring out their direct effect on the tissues of the body. In this war, however, one of the most important points for study and consideration in connection with the wounds is the geography of the battlefield.

The influences which have given a distinctive character to the wounds and their treatment lie in the

1. Character of the missiles;
2. The magnitude of the campaign;
3. The notable co-operation of the bacteriologist.

1. The kinds of missiles which are used in this war are indeed more numerous and varied than in any other war. It is a "pointed bullet war," in which the pointed bullet has been used universally and exclusively in both rifles and machine guns. The point of the bullet is in shape like unto a sharpened lead pencil, with the balance of the bullet back near its base, so that it is most easily turned completely over on its short axis, often striking the body base first or sideways, and even on entering the body point first will often turn over. The shattering effect of such a bullet on bone is very marked. Its high initial velocity and flat trajectory are responsible for the so-called "explosive or divulsive" force, wherein its momentum is imparted to the shattered bone fragments, driving them in every direction.

A remarkable and notable observation in this war is the increased proportion of wounds due to artillery fire over that of the rifle or machine gun. The common use of the high explosive shell, and especially the various forms of bombs, the hand grenades, shrapnel bullets and pieces of shell, all furnish a large number of large and small, sharp, ragged, fragments. These have accounted for the very large proportion of the wounds inflicted, with their increased liability to sepsis, over that of the pointed bullet.

The high explosive shell varies in weight from one ton down to a few pounds, consisting of a variable thick iron case with a central cavity filled with a charge of high explosive. In some of the largest German shells as much as 200 pounds of high explosive may be present. These shells explode on the percussion of a detonator and the damage done is by means of the many shattered pieces of shell and flying broken rocks and pieces of fortification scattered by the tremendous violence of the explosion. Some pieces of shell, as the base, often weigh 100 or 200 pounds, and will totally annihilate the body of a man; other pieces crushing a limb or tearing it off, the smaller shells doing less damage and often giving a soldier's body the appearance of having

had peppered into the skin minute pieces of iron.

The shrapnel shells are of many forms and sizes and are perhaps responsible for most of the wounds of the war. This shell contains from 200 to 400 bullets, lead, some whose coverings are soft, some hard. These bullets are packed tight with a form of hardened asphaltum which breaks into wicked, ragged, flying missiles on the explosion of the shell. The bullets in these shells are in size about one-half inch in diameter, never larger and often smaller. This shell is different from the high explosive shell in that it is timed by a fuse and is planned to burst in the air over the target; the case blows open and the bullets are then thickly scattered in a funnel-shaped manner with a velocity the result of the speed of the shell and not rue to the explosive bursting of the shell.

Bombs, Grenades of Various Kinds.—In all cases these are made with a case or covering of metal containing within it a large charge of a high explosive. This case may be thick or thin, corrugated or smooth, and on explosion break up into many fragments, varying in size from a small pea to a large walnut. Pointed, sharp, ragged, jagged, flying pieces, sometimes mixed in their flight with rough iron nails. All shells and bombs and even bullets may be responsible for the flying pieces of fortifications, earth, and sand, which in turn become missiles of war.

2. The magnitude of the campaign has called together such large numbers of combatants. The moral psychology of the combatants which has intensified their fighting to such a degree and extent that there never was a war as wickedly fought, by such enormous man power, utilizing science to such tremendous savage results. These facts have called for and insured the help of the world's most capable surgeons. It has resulted in a deeper appreciation of the great work of the medical department of an army, of its importance to the morale of the men, of the efficiency of the soldiers, the maintenance of their health, and the preservation of the wounded to return to the battlefield or to a useful civil life.

3. The modern war surgeon has received much help from the bacteriologist; and today a bacteriological knowledge of the ground over which the battles are fought is essential in dealing with the wounds. Never before has a war been fought over soil so full of every form of micro-organisms and spore bearing pathogenic organisms, which are even found to a considerable depth below the surface. The country has been thickly populated for ages; much live stock has been supported thereon; the soil has been intensively tilled, heavily manured with the excrements of men and the lower animals. And today every war wound is and must be considered infected with a large dose of the germs found in the ground over which the battle has been fought. The size of the dose depends on the wound, the extent to which clothes and skin have been soiled with the surrounding earth, the quantity of these carried into the wound, and the mixed contamination of the wound before it receives its first dressing. The infective action of the streptococci, staphylococci and other pyogenic organisms is generally well known; their responsibility for suppuration, cellulitis, septicemia in any wound, and also their devitalizing action on tissues which thereby assist the anaerobic organisms to gain a foothold. In the organisms of the colon group we have an action which has not yet been fully determined, except that the B. coli communis is a common finding in war wounds.

In the anaerobes we find actions of a most tragic character, and it is their action that the army surgeon has been called upon to combat more especially. Inflammation and suppuration is non-excitable and can be in the main headed off, but the dread of malignant oedema, gas-gangrene, and tetanus is always present. In the anaerobic infections we must resort to the most extensive mutilation and sacrifice of ordinary surgical ideas. It preponderates every other consideration. This is a trench war for the most part and

while much of the fighting has been in the open, yet the modern soldier lives and fights for the most part in a subterranean manner. Hence, the nature and manner of the soldier's life, the character of the ground, the free soiling of the clothes and skin, which accompanies trench warfare, together with the extensive mutilation of tissues inflicted by modern missiles, provide ideal conditions for severe infection.

When a soldier is wounded, say for instance in an advanced trench, he falls into dust, or mud, or muddy water. It is a matter of chance by whom the first dressing is applied. It may be the regimental medical officer, a regimental stretcher-bearer, a near-by comrade, or by the patient himself. He may be removed at once or may have to wait until night, with its darkness, makes possible his being passed back to the first aid post, which is established by a portion of a field embulance about one-half mile in the rear. Here the patient is detained no longer than absolutely necessary and is sent on by wheeled stretcher or horse-drawn vehicle o the main field ambulance, a mile or two farther back. Here the wounded soldier gets food, fresh dressings and rest on the stretcher or horse-drawn vehicle to the eral hours if his case is not urgent and the place not crowded. But with a battle on or if his case is urgent, he is put into a motor ambulance and taken to the clearing station a few miles farther back. The clearing stations are places which enable the field ambulances to "clear" themselves and then pass the wounded on to a stationary or base hospital. These clearing stations are also equipped to deal with urgent or immediate operations. The base hospitals have a capacity of from 800 to 3,000 patients and are exceedingly well-manned and equipped. These base hospitals each have a certain number of auxiliary hospitals to which the convalescent and mild cases may be sent.

The patient arrives at the base hospital with a tagged envelope containing his name, regimental number, diagnosis and what treatment has been given and whether anti-tetanic serum has been given or not. When I first entered my service at a base hospital I saw several cases (severe) of tetanus, but later we rarely had a case because the wounded soldier, whether he had a minor or major wound, receives at the clearing station 500 to 1,500 units of anti-tetanic serum.

CONDITION OF THE WOUNDED.

I shall speak of the condition of the wounded more especially at a base hospital, for it was at such a hospital that I had my service. Some of our convoys were made up of soldiers who had received their wounds forty-eight hours previously, when a push and battle was on and the clearing stations were congested, or ten days, when there was a comparative calm and the base hospitals nearest were not filled.

It is an interesting time at a base hospital when a convoy is being received. The poor soldiers seem so pleased to reach finally a place where they will be cleaned up, their wounds taken care of, and a satisfaction is written on their faces when they realize that they have at last reached their destination. And as they are carried on the stretchers many a soldier sleeps through the noise of the transportation. The soldiers on their stretchers are rapidly passed in front of the receiving major, whose staff examines the little water-proof envelopes which contain the soldier's name, the corps, regimental number, date of being wounded and diagnosis, with a brief memorandum of what has been done at the clearing station. There is also a memorandum as to whether anti-tetanic serum has been given or not. There is pinned with the envelope a piece of red flannel if it is a case where there is a likelihood of a scondary hemorrhage or urgent complication. The patients are assigned then to the words by the majors; surgical cases to the surgical, the medical cases to the medical section.

On arrival in their assigned wards the dirty clothing of the soldiers is removed and sent at once to the sterilizing room of the quartermaster's department. The patients are bathed, fed, and await the com-

ing of the surgeon in charge of their ward. As we work along with the aid of nurses, who quickly unbandage the wounds, we are surprised to see most of the wounded asleep. They are at last content with their transition from the battlefield and the casualty clearing station and the hospital train into the comfortable clean bed of a base hospital. Some are worn out with their long periods of watching and laborious tension in the trenches, where their every faculty was sharp and awake to the fact that amid the roar of the guns and screaming of the shells and fire-belching monsters, that amid it all they were fighting to take lives and fighting against death. As we pass along some are found to be in a shock, some whose wounds need immediate treatment, but usually it is best to observe watchful expectancy for the time being, for experience has shown that with many their best chance for life lies with sleep and quietness for the while. A little sleep, heat and rest often does wonders for many in a profound collapse. The modern wounded soldier is suffering not so much from muscular fatigue as from his wounds and the afterward exposure.

The soldier's general condition has been examined, the temperature and pulse rate recorded. If they have come a long way and their dressings have been changed recently on the boat or hospital train, they are much better left alone until they have been made comfortable in bed and had food and rest, unless the examination shows need of urgent interference. There are many soldiers who have sustained multiple wounds with one, two, or three compound fractures, and these are the cases with much shock. The soldiers with compound fractures stand transportation poorly, unless their temporary splints have prevented movement of fragments. It has been observed that manipulation of compound fractures even under general anaesthesia causes great exhaustion and low blood pressure, shock. For shock the subcutanous, or intravenous injection of normal saline and enemas of hot water. Alcohol is avoided, and instead hot tea or soup, giving as much comfort to the patient without the harmful cerebral stimulation. We scarcely ever used strychnine even in extreme prostration and found nothing more helpful than adrenalin and pituitary extract.

Experience in dealing with wounds of modern warfare teaches us that the missiles find their way into more extraordinary situations, by chance, than they could be placed by design. These constantly occurring extraordinary wound situations is what makes the daily life of the war surgeon interesting and serves to "buck him up" and feed his energy for long hours and extra exertion. Then, too, there are the interesting secondary complications of the wounds. The secondary hemorrhages, the bacterial invasions, the terrific infections; as I have previously pointed out that every war wound is an infected wound —the position and condition of the patient, the bruised and dead tissues, the ever-present microorganisms favoring gross infection.

ANTISEPTICS.

The wounded's first attention is the first field dressing, and the chief value of this first dressing consists in temporarily stopping hemorrhage and the prevention of a secondary contamination of the wound from the patient's surroundings, his clothes and skin. The practical value of an antiseptic for use in the first field dressing has yet to be decided; the prevention of sepsis by any superficially applied antiseptic is very doubtful when the missile penetrates septic clothing and skin.

There are several methods of procedure with the war wounds today when they arrive at the casualty clearing station or base hospital. Some wounds are excised, then packed with iodoform and bismuth paste and sutured. My personal observation of these cases, and those in which the operation was done early—the excision taking place at the clearing station—was that they did not do so well, and finally I made the practice of cutting the sutures and opening the wound at once on the entrance of the patient to the base hospital. How-

ever, it is a radical prophylactic method of avoiding the spread of infection, and valuable when the wounds are not sutured, drainage preserved, the septic matter having been removed en masse. In the use of antiseptics in the treatment of war wounds, honestly, one antiseptic is almost as good as another, and it has been observed more especially lately that the efficiency of antiseptics is very limited. The application of the antiseptics can kill microorganisms found on the surface of the wound, but will be unable to act on the organisms found in the depths. These war wounds are rapidly surrounded by indurated areas and beyond these areas organisms are found. Therefore the chief use of antiseptics is to destroy recently acquired organisms and to prevent secondary infection. Adequate drainage is no doubt by far the more important factor in the treatment of wounds than the use of antiseptics. The principal object which the surgeon has in view when cleaning an infected wound is the prevention of severe septic infection of an anaerobic character.

EUSOL—DAKIN'S SOLUTION.

The solution of free hypochlorous acid is called Eusol and it is this antiseptic that has been used so extensively, but more so earlier in the war than now. It is not now nearly so popular. The hypochlorous acid treatment is a very good treatment, when used in recent wounds before much suppuration has occurred. Its greatest success has been where it has been used very early, but the concensus of opinion is that generally the wounds have not become sterilized as rapidly as most of the cases described by Carrel. His cases that did best were treated quite early, and the best results being in the wounds of hands and feet that could be immersed in the solution and also in the extensively lacerated wounds with good drainage and where complete irrigation could be carried out.

It is easily prepared:—

1 litre of water
12.5 gms. of bleaching powder
(chloride of lime)
Shake vigorously.
12:5 gms. of boric acid powder
Shake and allow to stand over night, then filter, and the clear solution is ready to use.

The ultimate decomposition product in the tissues is hydrochloric acid and sodium chloride, and there is no fear of toxic absorption. A concentration of .5 per cent hypochlorous acid has been found most satisfactory. Stronger solutions rapidly lose strength, coming down to about .5 per cent free acid, after which they decompose more slowly. A solution of .5 per cent remains good and effective for from three to four weeks.

The methods of use are: As a lotion, diluted with water or normal saline; as a fomentation and covered with a rubber cloth, or without the rubber cloth; as a bath, full strength or diluted; and the most popular method is the one devised by Dr. Carrel. The standard strength he and others found to cause irritation to skin and tissues and must be used with caution. The powerful antiseptic action is of short duration and is lost by contact with albuminous substances; hence, in order to have a continuous antiseptic action, the wound is washed out with this Eusol solution, .5 per cent, care being taken that the solution is applied to every cavity of the wound. Then perforated rubber tubes 6 mm. in diameter, covered with heavy mesh gauze, are thrust into every pocket of the wound. In a case of compound fracture, these tubes extend to the site of fracture and among the fragments. The wound is then filled with gauze and covered with non-absorbent cotton through which the tubes extend. The Eusol solution is then run into the tubes every hour.

WOUND DRAINAGE.

Today the war surgeon emphasizes the importance of the mechanical factor in the treatment of wounds. Thorough mechanical cleansing of the surfaces, the provision of effectual drainage by the introduction of large tubes, the avoidance of the use of sutures as much as possible or any form of plug calculated to interfere with the free flow of lymph or later pus.

The principal elements in the treatment of large septic wounds and advanced sepsis are adequate drainage, removal of foreign bodies, and the removal of dead tissue. The mere fact of infection, which the war surgeon has learned is inevitable under the conditions to which the patients have necessarily been subjected, is of minor importance as compared to efficient drainage. These cases where the wounds are so located that free drainage is difficult or where the drainage has suffered obstruction are the ones that do badly.

Many elaborate methods of drainage may be found in the base hospitals. Counter openings for dependent drainage are the rule. Rubber tubes which act as a means to keep the walls of the wound or its depths apart. Gauze gets clogged and dried at some point and is not popular. The corse mesh cotton bandage is a popular drain, and where two strips of 2½-inch bandage are arranged so that they drain a can of normal saline solution into a basin a foot below, it will be found that the bandage drains the solution at the rate of more than a pint an hour. One of the most popular drains consists of one end of the bandage in the wound, the other end in a can of saline below; the wound is kept moist and wet by a continuous drip of normal saline into the wound from above. In the irrigation of wounds drainage is maintained and much toxic matter removed; and the most efficient dressing is the one that cleans the wounds of septic matter which can be obtained by irrigation when changing the dressing or by a continuous irrigation of the wound. The hypertonic saline solution of Sir Almorth Wright, with its osmotic action, is of vast advantage likewise, for there is a continuous drainage from the tissues into the wound, continually removing from the surface of the wound the film of toxic matter and thus limiting septic absorption. The continuous drip irrigation used with saline solution and coarse cotton bandage or gauze is better by far than the irrigation through rubber tubes; the tube irrigation is practically useless. Counter drainage is generally desirable. Compound fractures, advanced sepsis, deep septic wounds, all do well with such treatment. It is a fact that the war surgeon, that has experience with wounds soon after being received and with the older wounds, in cases of beginning and advanced sepsis, does not by any means limit himself to a single form of lotion or line of treatment, but finds that the complicated and septic wounds need a change of lotion or treatment as is necessary in the variation in the diet of the patient. Wounds not cleaning or not healing rapidly and those which become sluggish under some form of treatment often undergo an immediate improvement of a surprising degree when the treatment is changed.

THE BATH TREATMENT OF WOUNDS.

The different lotions diluted, the usual antiseptic solutions are all used; however, the hypertonic salt solution in a bath has largely replaced the antiseptic bath. In using the bath treatment, care should be exercised to stop as soon as the wound appears to be cleaning and not continue until there is a sodden appearance with unhealthy granulations. The hot bath is greatly used and very much appreciated by patients and the surgeons. One has only to observe the wonderful healing powers of the face, where there is a large blood supply, to readily appreciate how the hot bath becomes a most valuable treatment in that there is an increase of blood supply to an injured limb.

THE OPEN TREATMENT OF WOUNDS.

This is often the one of election and in some hospitals wounds have rarely been dressed with cotton and bandage. The heavy dressings in wounds with much drainage become a septic poultice and hence a direct menace. In this treatment thin layers of moist gauze are placed in and over the wound. The hypertonic saline or irrigation being used in connection.

The hypertonic salt treatment is the treatment that has proven of more universal application and efficiency than perhaps any other. It has been noticed that infection runs a fairly definite course

with a fairly definite duration until it is stopped by extraneous means other than the use of antiseptics, no matter the kind or the strength. The contiguous tissues of the wound are always found damaged, if not by direct trauma then by or with the divulsive action of the modern missile. The surrounding tissues are therefore more or less devitalized and often the muscle, nerves and vessels are dead, all of which favor sepsis and especially that of the anaerobic variety. Antiseptics really tend to maintain this lowered, or absence of, vitality and thus invite micro-organisms to multiply; and then it must be remembered that every antiseptic to be efficient is more or less irritating and toxic and hence most of the war surgeons today are using less and less of the antiseptic solutions.

The feeling is that the best effort lies in supporting and stimulating the forces of offense and defense which the patient himself can summon to fight the infection. Free drainage, removal of blood clots and foreign bodies, are regular routine, together with the establishment of a free lavage of the wound by lymph-laden antibodies which act in the tissues surrounding the wound as well as in the wound itself. The establishment of this lymph lavage is brought about easily and effectually and with no discomfort to the patient by means of hypertonic saline solutions. This hypertonic solution should be kept more or less in constant contact with the surfaces of the wound. Hence, the constant irrigation methods, continuous baths, gauze as a carrier of solutions, or the direct insertion of salt sacks into the recesses of the wound, so that the supply of hypertonic solution formed when the patient's own serum dissolves the salt is continuous. This treatment maintains a steady and not too profuse flow of lymph into the wound. The strength of the salt solutions may vary from normal saline to 5 or 10 per cent; and as the wound becomes clean the irrigation or bath is stopped and it is then dressed with gauze soaked with normal saline.

SOLID SALT METHOD.

My favorite method of using the hypertonic treatment is the one devised by Colonel Gray of the R. A. M. C., who employed it with the exclusion of all other methods; the result placing its utility beyond doubt—the solid salt method. This is carried on by means of salt tablets or salt bags, the salt bags being the better. The method is a most admirable one and in the treatment of compound fractures is especially fine. The procedure is very simple. The wound is first irrigated with 5 per cent salt solution, the cavity is then packed with gauze soaked with 5 per cent saline solution and hidden in the gauze are tablets of salt. Every portion of the wall of the cavity must be in contact with the gauze and into the depth of the wound a large drain is placed. The gauze becomes soaked with a saturated solution of sodium chloride and the hypertonic properties of the solution cause a flow of lymph from every portion of the wound. Caution, when packing the cavities of the wound care should be observed that the wound is not plugged. The walls of the wound are kept spread apart by the gauze and where the gauze and salt are used there will be a drainage as effective as though the wound was turned inside out and the walls thus become surface wounds. Then every portion of the surface area of the wound is drained by the osmotic action of the salt and then with the capillary action of the gauze and the bandage the discharge is constantly being removed. Sloughing will result if the tablets touch the tissues. The walls of the cavity must be well protected by the gauze. The better method of using the solid salt rests with the utilization of a two-walled sack of suitable size, made of bandage between the layers of which four layers of gauze are placed. The bandage and the gauze are folded and sewed into a sack with a tail drain formed of the bandage. Fill the sack with salt and the mouth of the sack is stitched. Sterilize and they are then ready for use. These sacks are placed into the wound with the spaces between the sacks and the walls

of the wound packed loosely with gauze. A small perforated zinc or rubber tube is placed along the side of the sack to the depth of the wound. The tube is then connected with the saline solution drip above the wound. Long and slender, or short and slender, or thick and short, all sizes of sacks may be used according to the character of the wound to be treated. The free end of the sack, the bandage tail, is carried into a vessel containing saline solution, and the wound drains by capillary drainage. When the salt is exhausted the sacks may be replaced or refilled. The sacks may be left in the wound for one to eight days without redressing. Sometimes and often it is thought best to use also a drip saline solution irrigation alongside the sacks to the depth of the wound by means of a fine rubber tube.

Personally I found the hypertonic solution superior to any antiseptic treatment of septic wounds, both in the early cases and those of advanced infection. Many are finding out that the combination of hypochlorous acid in the form of Eusol, the Dakin's solution, has not given any better results than the saline solution. It may be possible to sterilize a wound early when the micro-organisms are only a few and then very superficial, but the feeling is gaining that it would be better to rely on the gross removal of septic matter and then resort to the hypertonic solution for the removal of the remainder.

RESULTS OF HYPERTONIC SOLUTION.

1. Promotes a resolution of inflammatory induration.
2. Aids separation of dead tissue by solution of coagulated lymph.
3. Produces powerful outgoing stream of healthy lymph.
4. Carries out microbes and debris.
5. Repression of bacterial growth.

WRIGHT'S ORIGINAL SOLUTION.

It is called the Lymphogogic Solution; that is, it is a 5 per cent solution of sodium chloride with ½ per cent sodium citrate. The strength of the solutions used are 3, 4 or 5 per cent. The idea of the sodium citrate is that it prevents lymph clotting; but, for practical purposes the sodium citrate is really not needed and hence it is omitted.

GANGRENE.

There are several causes which may produce separate and distinct forms of gangrene.

1. Trauma or injury to the main blood supply may produce ordinary moist or dry gangrene; this type usually occurring in a portion of a limb.

2. Gaseous gangrene. This type of gangrene is due to the bacillus of malignant oedema, the bacillus aerogenes capsulatus or the bacillus perfrigens. It may also have combined with it the ordinary type of gangrene, the interference of blood supply.

3. The white form of gangrene is a distinct type and is likely caused by an acute virulent streptococcal invasion.

In all types, except some of the ordinary simple cases of gangrene, the etiological factor is the pathogenic organisms carried into the wound by the missile of war. The gas gangrene is therefore considered a primary and deep infection. There are several things after the entrance of the pathogenic organisms that may favor the further growth and development of the bacillus aerogenes; such as—

(a) Delay in primary or first aid cleansing of the wound.

(b) Greatly damaged muscles, blood vessels, and nerves, presence of much bruised tissue—practically dead tissue.

(c) Delay in the removal of foreign bodies, missile or clothing.

(d) Presence of excessive blood-clot and often albuminated tissues; albuminated often by antiseptics.

(e) Presence of many shattered pieces of bone.

(f) Poor blood supply.

(g) Concomitant sepsis.

PROPHYLAXIS.

1. An early drainage and cleansing operation.

2. Removal of foreign bodies, clothing, etc.

Caution should be exercised in too free

a use of the tourniquet and tight bandages. Also avoid the use of strong antiseptics; a simple cleansing solution, as a saline, is as good as any solution; the weak antiseptics of course having no effect upon the resisting types of organisms.

The particular type of gangrene called gas infection, gas gangrene, gaseous cellulitis, may be found in any gunshot wound and the surgeon and nurses are constantly on the watch for its appearance, no matter how small or insignificant the wound may appear to be. This condition also varies in the time in which it may develop, from a few hours to two, three, or seven days. Watchfulness, in fact, is observed until the wound is clean and healthy.

There may be a local type of this gaseous cellulitis which is fairly responsive to proper treatment and these are the cases that have helped some remedies and measures and some surgeons to gain a fine reputation in the treatment of gas infection. The diffuse type is the really dreadful one, the one that rapidly kills the patient unless a wide amputation can be performed. These cases are generally in deep wounds, with compound fractures of the long bones. The local type clears up readily with multiple incisions and open dressings and free drainage and irrigation.

The appearance of the limb in the diffuse type: The skin at a distance from the wound is normal, but as it approaches the wound a distinct discoloration is observed of a blue, grayish patch (not bright colored as in ordinary cellulitis). Oedema is pronounced and on palpation one can feel a distinctive crackling sensation in the tissues. The foot and hand often do not present any circulatory changes. Soon the patient shows by his rapid and small pulse, cold extremities, nausea, vomiting and often hiccough, that there is a deep and profound general toxemia. The patient may answer you that he does not feel badly and that he is all right.

One in treating gas gangrene should keep in mind that there is present an acute general toxemia together with the local irreparable infection. The various types of treatment outlined above are all applicable in these cases. The antiseptics and the oxidizing agents can not resuscitate dead tissues and certainly can not and do not have any effect upon the toxemia which eventually kills the patient. Free drainage, removal of dead and devitalized tissue, removal of foreign bodies, removal of septic matter en masse, and whether a local or general type, free and deep incisions should be made. Usually incise down to the deep facia only. Free irrigations of saline, or saline baths, are then practiced and if the local condition and general condition of the patient does not improve, then amputation.

In cases where the gangrene involves the entire limb, which is often the case, the prognosis is very bad and the treatment must be heroic and with speed. In these cases there is a rapid onset, often over night or on the way from clearing station to base hospital. Extreme general toxemia; temperature no guide, may be subnormal; tachycardia and weak action of the heart; extremities extremely cold; blood pressure low; the affected limb in great pain; patient awake; patient not stuporous but extremely mindful of his surroundings. The appearance of the limb is one of great oedema; early it is a grayish white, then spotted, green, yellow and dark purple on to a black color. These cases generally have with them severely septic comminuted compound fractures. The above described crackling feeling is felt under the skin and the subcutaneous gaseous cellulitis spreads with speed to the body. Here one has to amputate before the general toxemia is fatal. The amputation, to be practical, must be high and beyond the affected area if possible, but some cases recover when this is not possible. Usually saline is given at the operation, intravenously or into the breasts. If a small flap is made in the operation, it is good practice to turn same wrong side out and stitch it loosely to the limb above. Salt bags are placed on the open stump and wound and placed under a

saline drip with but few dressings.

Cholecystectomy vs. Cholecystostomy.

GEO. M. GRAY, M.D., Kansas City, Kansas.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

The operation of cholecystostomy is so safe and simple an operation that if it were always curative there would be no reason for considering any other method for the relief of gall bladder disease, but in far too many of these cases in which cholecystostomy has been done for the relief of cholelithiasis or cholecystitis the relief is only temporary and the patient is again suffering from biliary colic or from pain and tenderness in the gall bladder region, and frequently with painful digestion, all due to the diseased gall bladder; these symptoms being relieved only so long as drainage is kept up, and a permanent relief from the symptoms being obtained only by the complete removal of the infected gall bladder.

For the past ten years there has been a growing tendency toward the operation of cholecystectomy in cholecystitis for the reason that the operator constantly saw these cases of recurrence in his own practice, as well as among the cases operated upon by other surgeons. The mortality, especially in the hands of those doing a limited amount of gall bladder surgery, has always been higher than in the simple drainage operation, which doubtless has deterred many from excising gall bladders that were so diseased that nothing short of complete removal could cure the patient.

At the present day we recognize the fact that there is a place for each operation or we think there is, but with a constantly increasing preference for cholecystectomy as the operation of choice.

CASE HISTORIES.

At this place I wish to report a few cases bearing upon this subject.

Case No. 1.—L. D., age 46. Residence, Tulsa, Okla. Occupation, well driller. Admitted to St. Margaret's Hospital February 23, 1917, at which time he gave the following history: For the past ten years has been troubled with stomach derangement, the attacks being intermittent in character, and occurring every two or three months. He complained of pain in the upper right quadrant, accompanied by vomiting. Five years ago gall bladder was drained and appendix removed. This was done in Oklahoma. He received no benefit from this operation, his spells continued the same, both as to pain, tenderness and vomiting, the spells lasting two or three days at a time. He is continuously tender over the gall bladder region. A test meal was given him after entering St. Margaret's Hospital, which showed: Contents recovered, 6 ounces; total acid, 26; free hydrochloric, 18. Negative as to blood. A leucocyte count showed 6,750 leucocytes. Urinary examination showed urine normal. He was also suffering from a ventral hernia in the scar of the previous operation.

On March 4 we opened the abdomen, found the gall bladder bound down by dense adhesions of the omentum to such a degree that it was only after extensive dissection of the adhesions that the gall bladder could be brought into view at all. When it was found, it was distended with dark rather thick mucus and bile. Three small concretions were found in the gall bladder, one within the cystic duct, though the duct was not entirely occluded, judging from the bile found within the gall bladder. The gall bladder was extirpated and the ventral hernia repaired. He left the hospital with every prospect of improvement in his condition.

Case No. 2.—M. E., age 47; housewife. Entered St. Margaret's Hospital first time in October, 1916, then suffering from acute cholecystitis. I was out of the city at the time and the gall bladder was drained by Dr. Owens. The drainage was kept up for some three weeks when the wound healed, and she left the hospital much improved. However, within a few weeks she began again to have distress and pain in the upper right quadrant of the abdomen, tenderness developed over the gall bladder region. She became nervous and was

unable to sleep well on account of this discomfort in the gall bladder region. Her stomach digestion was but little disturbed, though her appetite was poor and bowels constipated.

She again entered the hospital on April 8, 1917, and the abdomen was again opened on April 17 by a right lateral incision through right rectus muscle. Many adhesions of the omentum to the fundus of the gall bladder were found present. The gall bladder was distended and could be emptied only under continuous firm pressure, and then emptied very slowly. The gall bladder was excised, and the appendix also removed, which was markedly chronic. She left the hospital on April 21, much improved.

Case No. 3.—Mrs. J. W. G., age 49. Residence, Kansas City, Kansas. Occupation, housewife. Mother of one child.

Began having severe attacks of gallstone colic in 1905. Was often markedly jaundiced following these attacks of colic. In 1912 attacks became more frequent and she suffered more or less continuously with tenderness in the region of the gall bladder. Slight jaundice nearly all the time.

She entered St. Margaret's Hospital in March, 1913, at which time I operated upon her for the relief of cholecystitis. The gall bladder was found very much thickened and contained a large number of stones; many adhesions of the gall bladder to omentum and surrounding viscera. The gall bladder drainage was kept up for some three weeks when the wound was allowed to heal.

She did fairly well for one year, when she again began to have attacks of discomfort and tenderness in the region of the gall bladder. These attacks have continued off and on up to the present time.

She dreads another operation and so far has not consented to same; however, I think that the pain and discomfort she now complains of is due to the diseased gall bladder which still remains and is painful when bile is forced into it or out of it, and that the only means now open for relief would be excision of the gall bladder.

While attending the meeting of the Clinical Congress of Surgeons of North America in Philadelphia last fall, one evening was devoted to the relative merits of cholecystostomy and cholecystectomy, the subject being presented in the form of a symposium in three papers, one by Dr. Fred B. Lund of Boston, subject "The Indications for Cholecystectomy," Dr. Chas. H. Mayo, Rochester, Minn., subject "The Relative Merits of Cholecystostomy and Cholecystectomy," and Dr. Jno. B. Deavor of Philadelphia, Pa., subject "Cholecystostomy versus Cholecystectomy."

These papers are published in the March number of *The Journal of Surgery, Gynecology and Obstetrics,* and are well worth reading by those interested in this branch of surgery.

As the subject is handled by three of the ablest men in this country and they all voice the same sentiments and conclusions, I shall take the liberty of quoting from these papers in what I have to present to the Society on this subject.

In treating gall bladder disease which is always due to infection in the wall of the gall bladder, we should get away from the idea that gall stones are the essential indication for operation in cholecystitis, and gall stones should be regarded only as a sequel to the infectious process in the gall bladder and of no special importance in the case outside of being the cause of very severe attacks of pain (gall stone colic).

In some cases where the stone is small and enters the cystic or common ducts and probably in many of these cases where there is severe colics followed by jaundice the stone passed through the ducts; Dr. J. B. Murphy always contended that without gall stones there was no colic and that the severe colics were due to the passage of the stone along the ducts or the effort on the part of the ducts to squeeze it out. Others as Dr. Bevan have contended that the pain of gall stone colic was due to back pressure on the gall bladder or gall ducts.

In considering the extirpation of the gall bladder we are naturally confronted with the question as to what is the function of the gall bladder and what is the effect on the individual of total extirpation.

Dr. Chas. Mayo states that the anomaly of its absence in man is very rare and that in several of the clean feeding animals, as the horse, the deer, the rhinosceros and a few others, there is absence of the gall bladder; the ducts in these animals are always longer than in those in which the gall bladder is present.

Dr. Judd and Dr. Mann of Rochester, Minn., in an article, "Animal Experiments to Determine the Effect of Extirpation of the Gall Bladder," published in *The Journal of Surgery, Gynecology and Obstetrics,* April number, state they used dogs, cats and goats in their experiments and their conclusion is that after extirpation of the gall bladder in these animals there occurs a dilatation of all the extra-hepatic ducts. Dilatation of the intra-hepatic ducts does not occur probably owing to the support given to them by the hepatic tissue. The dilatation amounts to two or three times the normal size and is sufficient to contain as much bile as the normal gall bladder. This dilatation is accounted for, concluding that a separate sphincter muscle exists at the duodenal end of the common duct in man as well as in these animals used for experimentation. In fact, this muscle has been described in 1887 by Oddi in experiments to determine the functional importance of the gall bladder.

The conclusions of Judd and Mann are as follows: Normally the liver secretes bile constantly, although the rate varies. However, because of the action of the sphincter Oddi, bile is not passed into the duodenum at the same rate that it is secreted; the excess accumulates in the gall bladder. After cholecystectomy the sphincter attempts to maintain this difference between rate of secretion and rate of discharge, with the result that bile accumulates in the ducts. As the sphincter is able to withstand a pressure varying from 100 to 645 millimeters water and the secretory pressure of the liver varies from 230 to 360 millimeters water the intraduct pressure is considerably increased, and this increased intraduct pressure produces dilatation of all extra-hepatic ducts. The intra-hepatic ducts being supported by the liver tissue do not dilate. This process producing dilatation of the ducts is maintained until the biliary tract will contain as much bile as the gall bladder, or until the sphincter itself becomes dilated and is not able to withstand its normal pressure, and then there is a diminution in the intraduct pressure.

Dr. Chas. Mayo says that it is their experience that the ducts are increased in size after the removal of the gall bladder, and the enlargement is usually present consequent to the disease at the time of the operation. He states that they have reports from ten patients who are enjoying good health fifteen years after cholecystectomy and a larger number of patients who have had the gall bladder removed for a shorter period with every evidence of success.

A healthy gall bladder undergoes no stress or symptoms because it is capable of expanding and caring for the ounce of bile delivered each hour for several hours, and by its rhythmical contraction is able to pump it through the ducts into the duodenum against the internal pressure. If the gall bladder is diseased its capacity is reduced, its possessor is conscious of its expansion, and contraction is painful.

In many the original cholecystitis which caused the stones to develop has subsided and there may be no associated food dyspepsia, as at this time there is no reduction in the gall bladder capacity, and any symptoms are usually those of colic due to obstruction of the cystic duct. In such cases cholecystostomy would give a good percentage of cures, while the greater the evidence of infection, the thickening of the gall bladder walls, necrosis and strawberry gall bladder, the greater the indication for cholecystectomy.

It is now generally recognized that at least one-fourth of the diseased gall blad-

ders do not contain gall stones, but cause more or less discomfort and constantly maintain the so-called frictional disorders of the stomach. In many of them the local areas of inflammation have produced a hyperplasia which shows a papillary growth of mucous membrane and is potentially productive of cancer, and herein lies the fallacy of depending on the X-ray for the diagnosis of diseased gall bladders.

The X-ray cannot show papillary growths, cholecystitis nor the severe infections of the gall bladder, and only in a limited number of cases when gall stones exist can they be shown by the Roentgen ray. Therefore the X-ray is misleading and of no value in the diagnosis of gall bladder disease.

Dr. Deaver says that since 1910 there were operated in the German Hospital 1,189 cases of gall bladder disease; fifty-one of these cases had had one or more previous operations upon the gall bladder or ducts, so that 4.2 per cent of the work represented failure to cure. Sixty per cent of these cases had recurrences and were operated on within one year after the first operation. Thirty per cent were operated upon within the next three years, and 10 per cent were variously distributed from four to seventeen years after the first operation.

In 65 per cent of the cases of recurrence after cholecystostomy, the cause of recurrence was traceable directly to failure to remove the gall bladder.

In summing up Dr. Deaver concludes in regard to the two operations, speaking generally, cholecystectomy is preferable in the hands of the master of biliary surgery, since the mortality is but little higher in selected cases and the percentage of cures is greater. Cholecystostomy is slightly safer and in many cases eminently successful, and the surgeon may always reflect that two operations on a living patient are better than one on a dead one.

Cholecystectomy would be indicated in the case of a cystic gall bladder with destroyed mucosa, empyema and functionless strawberry gall bladder, also in cholecystitis severe enough to give symptoms, as cholecystostomy with its temporary drainage could not eradicate the bacterial inflammation of the wall of the gall bladder. Since as a result of the fixation of the fundus by adhesions incident to drainage the best working part of the gall bladder becomes inactive, many patients with cholecystitis have great relief while the gall bladder is draining, but the symptoms recur after the drainage ceases.

When the gall bladder gives marked evidence of associated functional derangement of the stomach, cholecystectomy should be performed whether or not stones are present. Cholecystostomy gives a high percentage of cures when the evidence of disease is slight, stones are present and gastric symptoms are absent.

In associated pancreatitis drainage of the gall bladder for a considerable period rather than cholecystectomy would be indicated even at the expense of a second operation.

Unless there are marked indications to the contrary, cholesystostomy is advisable in pregnancy, and for old people whose resistance is often surprisingly lower than their clinical examination indicates.

———B———

The Action and Use of Sodium Chloride.

J. S. SUTCLIFF, M.D., Iola, Kansas.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

McCullum of Toronto and others have called our attention to the close resemblance between the blood plasma of vertebrates and sea water as regards the relative proportion of the saline constituents.

We are primarily aquatic animals floating around in a fluid (the blood) the mineral constituents of which closely resemble sea water, the principal ingredient of which is sodium chloride. When the primary unicellular organisms which float around in the blood stream, as do fishes in water, form colonies, they constitute organa. These cells, be they single or in colonies, require for their existence a constant supply of fresh saline solution, without which they cannot exist.

It has been demonstrated that tissues will live longer in a solution of a number of salts: these in the same proportionate concentration in which they exist in sea water. Let the toxic material, as the toxines from the various bacilli, accumulate in the blood stream and this fluid becomes so toxic that our primary cells die of poison for want of fresh water, so to speak.

In a healthy adult about 250 grains of sodium chloride is excreted by the kidneys as well as considerable quantities by the sweat and feces within twenty-four hours, an equal amount must necessarily be taken into the system daily in order to keep up the balance, and this is taken in combination with the food.

Sodium chloride is one of the most important inorganic constituents of the body fluids. Owing to its chemical inertia it is pre-eminently the salt which maintains the osmotic equilibrium between the tissues and the blood. The free osmotic properties which the lymph in the tissue spaces also owes to sodium chloride insures another important function, that of sweeping away by the lymph current all waste derived from the cells.

When the supply is inadequate all the functions are hampered. Since it is the solvent of the serum globulin, by holding the latter in solution it insures its free circulation as a constituent of the plasma.

Given in solution, whether this solution is made in the stomach or before it enters the system—I say made in the stomach, as it has been my custom to give sodium chloride in capsules—it induces thirst, an increased amount of fluid is thus taken which washes out the stomach, intestines, kidneys and other organs. The water by its bulk stimulates peristalsis and voids in solution or suspension the putrescent material from the bowels; some of the water is absorbed, the bulk of the circulating fluid is increased. The greater volume causes endocardial stimulation and the circulatory efficiency may be enhanced. The increased blood pressure promotes diuresis, the vital processes are all quickened, tissue changes increase, mucous membranes secrete more freely and the skin glands functionate more actively. To dilute toxines, to dissolve them and to promote their excretion, are among the many actions of saline solutions.

Experimental research shows that 5 per cent sodium chloride solution injected subcutaneously caused leucocytosis, phagocytosis and increased tissue metabolism. It retards the development of typhoid and cholera bacteria and in some instances caused their destruction.

Prophylactic injections given twenty-four hours before inoculation enabled guinea pigs to resist a dose from two to three times as large as that which kills controls.

When relieved of its salts the serum loses its haemolytic power, but as soon as these salts are restored to it this power reappears.

It has long been an established custom with the surgeon to use freely saline solutions per hypodermoclysis and per rectum in infectious surgical cases as well as in cases of exhaustion. These methods, however, have had a very limited use with the internist, especially in cases of infectious diseases in children, probably on account of the inconvenience and pain produced during administration. Some time ago I conceived the idea of using salt in capsules, regulating the dose more in proportion to the amount of water taken than otherwise.

Sodium chloride is of especial value in many febrile, infectious and septic conditions, when we take into consideration the fact that as soon as anorexia is established the supply of sodium chloride is cut off in proportion to the amount of food taken, consequently there is retarded osmosis, an accumulation of toxic material in the blood and tissues, all functions are hampered, as I said before on account of it being the solvent of the serum globulin, and its osmotic property of the lymph, the body's supply soon becomes inadequate, the protective functions are hampered in proportion as the deficiency of the salt is marked.

The administration of sodium chloride

in infectious conditions I consider of greater importance than any other drug.

In typhoid fever, measles, and scarlet fever, it is my custom to administer it in capsules unless I can get them to take it in broths and other foods. This is followed by the free administration of water.

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The County Hospital.

J. L. MOREHEAD, M.D., Neodesha, Kan.

At the thirty-fifth regular session of the Kansas State Legislature, among other laws that were passed was one providing for the establishment and maintenance of a county hospital. This law can be found in the session laws of 1913, on page 346, chapter 202, and house bill No. 223. The heading of this law reads as follows: An act to enable counties to establish and maintain public hospitals, levy a tax therefor, elect hospital trustees, maintain training schools for nurses, and to make possible the ultimate establishment of an adequate supply of hospitals with equal rights to all and special privileges to none.

Section 1. How Established. — Any county less than 40,000 inhabitants may establish a county hospital in the following manner: Whenever the board of commissioners of any county shall be presented with a petition signed by 25 per cent of the resident freeholders of such county, 10 per cent of whom shall not be residents of the city, town or village where it is proposed to locate such public hospital asking that a tax may be levied for the establishment and maintenance of a public hospital at a place in the county named therein, and shall specify in the petition the maximum amount of money proposed to be expended in purchasing or building such hospital, such board of commissioners shall submit the question to the qualified electors of the county at the next general election to be held in the county, which tax shall not exceed two mills on the dollar for any one year and be for the purchase of a site or sites and the erection thereon of a public hospital and hospital buildings, and for the support of same.

Section 2. Question Submitted — Hospital Fund. — This section simply states the manner in which the county commissioners shall submit the proposition and the manner in which it shall be submitted and how much shall be voted. A majority of the votes cast being favorable, then the county commissioners proceed to levy the tax so authorized, collected same as other taxes and credited to the hospital fund and paid out only by the hospital trustees.

Section 3. Hospital Trustees—Appointment—Election—Term. — If the proposition carries the county commissioners proceed at once to appoint seven trustees, chosen from the citizens at large with reference to their fitness for such office, not more than four of the trustees shall be residents of the community in which the hospital is located. These said appointed trustees shall hold office until the next following general election, when seven trustees shall then be elected, three for two years and four for four years, who shall by lot determine their respective terms. Then at each subsequent general election the offices of those whose terms are about to expire shall be filled by the nomination and election of hospital trustees in the same manner as other officers are elected, none of whom shall be physicians.

Section 4. Hospital Board—Organization—Powers—Duties.—Said trustees shall qualify within ten days after appointment or election, and then organize by electing a chairman, secretary and treasurer and such other officers as they deem necessary. No trustee receives any compensation except actual personal expenses incurred as trustee. This board then has full power in the running and maintaining of said hospital.

Section 5. Vacancies and How Filled. Section 6. — This section relates to the power of the board to condemn necessary property. Section 7 has to do with the plans and specifications. Section 8 gives the city jurisdiction over the hospital wherever located the same as any other

property. Section 9. Appropriation for Improvement and Maintenance. — County commissioners may appropriate each year not to exceed five per cent of its general fund for improvement and maintenance. Section 10. Who Entitled to Hospital Benefits—Compensation for Care of Patients. —This section provides that such a hospital is for the benefit of all of the inhabitants of such county; but every inhabitant who is not a pauper shall pay a reasonable fee or compensation for services as prescribed by the Board of Trustees. People who are unable to pay a fee are admitted to our hospital here by order of one of the county commissioners and one or two members of the board of trustees. Section 11. — Physicians, nurses, attendants and patients are all subject to the rules passed by the board of trustees. Section 12.—Gifts or bequests. The board of trustees may accept any gift or bequest the same as any other institution or hospital. Section 13. — No discrimination against legal practitioners. Thus no discrimination shall be made against any practitioners of any school of medicine or healing recognized by the laws of Kansas. Section 14.—Training school for nurses: Board may establish and maintain training school for nurses. Section 15 gives the board the right to fix all fees, also to determine whether or not patients presented are subjects for charity. Section 16 makes the law effective April 30, 1913.

In the spring of 1914, learning that there was such a law enacted— in fact some of us have been accused of having a part in its making—we quietly laid our plans to locate the first hospital under this law at Neodesha. We first had the law printed in full in the local paper and the following day started out with our petitions over the county and did not have any trouble at all in getting the required number of signatures. Then followed the calling of the election by the county commissioners at the election in November, 1914, at which time the proposition carried nicely with the aid of our sister city, Fredonia, and Center Township, and one or two other townships in the county, with Neodesha and Neodesha Township unanimous for the proposition. The trustees were then appointed by the commissioners according to the law and these trustees took up the work of getting the site and building our present beautiful hospital. The building was completed in December, 1916, at which time the new hospital was opened to the public with a very successful clinic day. A number of prominent surgeons and specialists assisted the Wilson County physicians with the work, and on that date were performed nine major operations and sixteen minor operations. Following our successful day the Wilson County Medical Society held its regular quarterly meeting and decided to have an annual clinic day.

Our Wilson County hospital was accepted by the trustees on December 7, 1916, and one week later was held our first clinic day at which time so many cases were successfully operated upon. This beautiful site and building together with the heating plant was completed for $25,000. The benefits to be derived from such an institution in a small community are shown by the work of this hospital since its opening last December. From December 12, 1916, to September 12, 1917, the patients who have been admitted to the Wilson County hospital number 164. Of these 73 were major operations, 51 minor operations, and 40 medical cases. Only eight were county or charity patients, and there were only ten deaths. The hospital has been almost self-supporting, costing the county not more than an average of one hundred dollars a month over and above the receipts. This is certainly a good showing for the first year. But two colored patients have been admitted during the year and some very comfortable quarters have been set aside for them by the trustees in the basement or first floor. We have a splendid corps of nurses in charge at present. The matron and head nurse having charge of the institution and girls in training during the day and a graduate nurse on night

duty. We have an excellent training school started and have six bright and capable student nurses.

An institution of this sort furnishes an opportunity to do something for a community that is worth while. The modern hospital of today should be dedicated not only to the cure of disease, but also to that other phase of modern medicine, even more important, the prevention of disease. There is an influence radiating from the hospital and its personnel, which, like a leaven, will permeate the entire community for prevention, personal hygiene, and public sanitation. The hospital not only gives better service, but does so for much less money, than could be given in the home. The hospital is ideally equipped to care for the sick and injured, while the modern home is equipped for those who are well. The day of kitchen surgery is fast on the wane and within a few years every live community will afford a nice modern hospital similar to ours. Since our hospital has opened the physicians of Neodesha have fast learned to depend on it and its excellent staff of nurses in cases of serious sickness, injury and surgery, and we find that the community is also fast falling into line with us and in most instances request to be taken there. We find that our hospital gives us confidence and that we have been able to assume responsibilities that we had not assumed before.

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Hemihypertrophy

H. Cohen, New York (Journal A. M. A., Aug. 11, 1917), reports a case of hemihypertrophy with increased sugar tolerance. The hypertrophy was on the right side, involving the right leg from the middle of the thigh down. It gave no discomfort. The Roentgen examination showed marked changes in the bones about the knee, ankle, tarsal articulation and tarsal phalanges. The left leg was normal in all respects. Examination of the chest and head showed no enlargement of thyroid, thymus, or pituitary, and there were no functional disturbances in the organs. The sugar tolerance was tested as follows: The patient was given 150 gm. of glucose by mouth twelve hours after the last meal. The urine was tested for sugar in a specimen the following hour, and for the next five hours and in a complete twenty-four hour specimen. The glucose given was increased 50 gm. daily until 650 gm. had been given at one time without its appearance in the urine. Following the last test the sugar content of the blood was 0.088 per cent. Cohen advances no theory of his own for the hypertrophy which had gradually increased from birth to adolescence.

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Myocardial Involvement

B. S. Oppenheimer and M. A. Rothschild, New York (Journal A. M. A., Aug. 11, 1917), have studied the relationship of myocardial involvement to a certain type of electrocardiogram. A priori considerations lead them to believe that there is an electrocardiogram characteristic of lesions involving part of a bundle branch or its arborizations. They prefer the term intraventricular block to that of bundle block in describing these conditions. In the course of the past few years there have been observed sixty-two cases in which the electrocardiogram indicated an intraventricular block, and they have studied and analyzed these cases noticing also its association to atrioventricular block, and describing the pathologic changes found on necropsy in fourteen cases. Their conclusions are as follows: "1. There has been a discrepancy between previous electrocardiographic interpretation and pathologic findings. 2. Theoretical considerations and pathologic findings point to the existence of a hitherto undescribed type of disturbance which we have called arborization block. 3. We venture to state, therefore, that there is a definite clinical combination to be known as arborization block; that this condition can be diagnosed by the presence of a definite and permanent type of electrocardiogram, and that the condition has a very serious prognosis."

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

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The Evaluation of Clinical Evidence

If we have placed too high an estimate upon the value of clinical evidence in determining the efficiency of methods of treatment, it need not follow that all such evidence is valueless and should be disregarded in forming our conclusions. In any attempt at an evaluation of clinical evidence we must first consider its character, its source and its volume. The character of much of such evidence as we are asked to accept differs little from that upon which the practice of centuries ago was based.

It was in a very early day that some scientist of great renown among the noble red men of the forest announced a cure for hemorrhage. Several wedges were made from tough wood to be kept on hand. When occasion demanded, for the checking of hemorrhage, a tree was felled and after being nicked with an axe a wedge was started in the log. This was slowly driven in until word was brought that the hemorrhage had ceased. Should the hemorrhage continue until the wedge was driven as far as possible, another one was started and the process continued. This treatment was much in vogue during the early part of the nineteenth century and in many cases the bleeding ceased before the first wedge had been completely driven. There was abundance of testimony to establish such positive results, and such clinical evidence was fully as competent as is much of that upon which we are expected to accept some of the so-called scientific methods of treatment today. There was a sequence of events and the relation of cause and effect was presumed, and in just such sequence of events, without any data showing any other relation, is much of the clinical evidence found that we are expected to accept.

Early in the nineteenth century there was in vogue a treatment for pneumonia which had many supporters and for which much clinical evidence of a similar kind was produced. This treatment consisted in the application of poultices made of black cat skins. As soon as the animal heat had been dissipated from the skins they were removed and fresh ones applied. Some very remarkable cures were related. After several days of treatment by other remedies, a prompt and very marked improvement sometimes occurred upon applying the black cat skins. In the treatment of pneumonia one may seem to see some very remarkable and pleasing results with a great variety of remedies—if they happen to be administered at just the right time.

In the cat skin treatment there was a sequence of striking events, but no one attempted to establish a causal relation between them—such a relation was simply assumed to exist. It required less imagination, perhaps, to assume a causal relation between the application of cat skins and the occurrence of a crisis in pneumonia than between the wedging of a log and the cessation of hemorrhage in a man a mile away, but it required imagination in both cases, for the crisis would have occurred just as promptly without the cat skins and the hemorrhage would have ceased just as surely without the wedging of a log.

Evidence of this kind is valueless and yet there is seldom a season passed but someone tries to convince the medical world, by similar clinical evidence, that he

has found a specific treatment for pneumonia.

There is another character of clinical evidence in which a causal relation between the remedy and the subsequent events may be fairly shown, but in which no effort is made to distinguish the active from the inactive elements of the treatment.

Something more than a half century ago a very popular remedy is reported to have been used quite commonly in rural communities in the early treatment of measles. "Sheep nanny tea," a concoction made from the dried feces of sheep, was administered to those with the first symptoms of the disease. We have it on the very best authority that after administering a bowl of this tea the patient would be greatly nauseated, sweat profusely, and soon the eruption would appear. In the next century the author of this treatment —if he can be discovered—will probably be credited with the first glimmering conception of the theory of immunity, and it will be stated that this treatment was suggested to him by his observation that sheep did not contract measles.

Of much the same character was the clinical evidence used to establish the efficiency of "chamber lye" in the treatment of conjunctivitis and various skin eruptions. That this evidence seemed ample until well along in the nineties may be shown by the numerous reports of cases of gonorrheal infection of the eyes acquired in the use of this treatment.

We have it on good authority that these remedies, if they may be so called, were in common use at some time and in some parts of the country. They belonged in the class with household remedies. They were considered ridiculous by those who had any medical knowledge and would be so regarded by everyone with ordinary intelligence now, for the character and source of the clinical evidence of their efficiency makes it absurd.

One wonders if the medical world of the next century will find in the medical literature of today any great assurance of our careful analysis and cautious judgment in the selection of remedies. Not many months since, there appeared in one of the leading medical journals of this country a description of a treatment for tuberculosis. This consisted essentially in feeding the patient with milk from cows which had been fed with sputum of tuberculous patients, or inoculated with a solution of the same. The claims made by the author were apparently convincing to many members of the profession, and it was later reported that the municipal authorities of one of our great cities had given the treatment a trial, but abandoned it on account of there being no evidence of curative value.

Within the past few weeks there appeared a report of an experiment in the treatment of poisoning by poison ivy. Cows were fed on the poison ivy plant mixed with grass and the milk from the cows given to the patient. One patient was so treated, no further attacks occurred during that season, but the patient had a recurrence during the next season.

In the Journal A. M. A., September 15, there appeared a report of two cases of supersensitive persons subject to asthma associated with contact with horses and other animals. They were given minute doses of a solution extract of horsehair. Improvement in these cases was reported, although the author does not claim that any conclusions can be drawn from such meager data. Why make the report then?

We offer no criticism of the efforts of the authors of these reports, nor of the principles upon which they are endeavoring to work out a series of scientific remedies, but we can not see that these efforts, as reported, have yet reached the dignity of experiments. No especial benefit may be derived from such publicity by either the authors or the profession, while premature announcements may result in discredit to both.

We have in mind a premature announcement, many years ago, of some experiments being made by a quite famous physician on the rejuvenating effects of certain glandular extracts, and the almost

complete exhaustion of the supply of rams on the sheep ranches of this country, in the effort to supply the demands of ambitious human derelicts for this rejuvenating material.

Perhaps we are traveling at too rapid a pace to wait for a sufficient series of experiments and a careful tabulation of results, perhaps it is because we, in this country, are naturally gamblers and prefer to take a chance on a one to a hundred shot, or perhaps it is because the clinical evidence submitted for our consideration has been unreliable and indefinite; at any rate we seem to be lacking in that thoroughness and attention to detail which should characterize our progress.

It is upon clinical evidence that our ultimate conclusions as to the efficiency of any treatment are made, but such evidence must be voluminous, it must be made up of definite data carefully analyzed and systematically tabulated. It is by such evidence that many of the remedies in which we have placed much confidence are being rejected as inactive, and many of those already discarded are being restored to our armamentarium as therapeutically definite and certain. It is by such evidence that the remedies of the future must be established and there should be no room in our current literature for meager reports in which the diagnosis is not established, in which the treatment is indefinitely stated, the results are unsubstantiated and the conclusions unwarranted.

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Notice has been received of the death of Dr. Walter S. Mason, of Cedar Point, Kansas. Doctor Mason was born in 1850. He was a graduate of Rush Medical College in the year 1880.

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Our President, Dr. Chas. S. Huffman, has assumed the duties of the Adjutant General's office to which he was recently appointed by Gov. Capper. We congratulate Dr. Huffman on the honor he has received and congratulate the State in having so competent and conscientious a man for so important an office.

The Official Bulletin says (Sept. 19): "Twenty-five leading men of the Christian Science Church in the states east of the Mississippi River met in conference with the United States Food Administration and expressed their earnest desire to co-operate in every way with the plan of producing and saving food in the United States during the war."

It is very evident that there will now be no further trouble in carrying out the plans of food administration.

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Two of the members of the Franklin County Society are now in active service with the Army. Dr. Alexander Haggart has been commissioned a First Lieutenant and is in the training camp at Fort Riley. Dr. George W. Davis is also a First Lieutenant in the Reserve Corps and is stationed at Camp Pike and assigned to the Eleventh U. S. Cavalry.

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Shawnee County Contingent.

The following members of the Shawnee County Society are now in active service with various sections of the army:

S. A. Hammel, C. C. Lull, L. C. Bishop, E. G. Brown, J. D. Cook, J. A. Crabb, A. M. Dawson, F. J. Ernest, C. M. Hensley, G. E. Hesner, C. H. Lerrigo, F. L. Loveland, M. K. Lindsay, J. G. Stewart, L. M. Tomlinson, A. L. Weisgerber.

Several others have received commissions and are expecting orders at any time and still others have applied for commissions.

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Lecture Bureau.

We give herewith an incomplete list of lecturers and subjects that will be available for county society meetings. Others will be added before the next issue of the Journal.

C. C. Goddard, M.D., Evergreen Place Hospital, Leavenworth—

"Borderline Cases."

"Mistakes."

"Moral Perverts."

"Sexual Perversion as Causative Factor."

Richard L. Sutton, M.D., Kansas City, Missouri—
"The Symptomatology and Treatment of Syphilis," illustrated with lantern.
W. W. Duke, M.D., Kansas City, Mo.—
"Glands of Internal Secretion."
"Dental Sepsis in Its Relation to Systemic Disease."
"Diagnosis and Treatment of Stomach Disorders."
Ralph H. Major, M.D., Clinical School of Medicine, Rosedale—
"The Etiology of Nephritis."
R. C. Lowman, M.D., Kansas City, Kan.—
"Acute Surgical Conditions of the Upper Abdomen."
A. L. Skoog, M.D., Kansas City, Mo.—
"Acute Spinal Fluid Diagnostics."
"Acute Poliomyelitis."
"Brain Tumors."
"Spinal Cord Tumors."
E. J. Curran, M.D., Kansas City, Mo.—
Subject announced later.
John Sundwall, M.D., University of Kansas, Lawrence, Kansas—
"Structure and Function of the Ductless Glands."
"Sympathetic Nervous System."
M. T. Sudler, M.D., Clinical School of Medicine, Rosedale—
Subject announced later.

SOCIETY NOTES.

WILSON COUNTY MEDICAL SOCIETY.

The second annual clinic of the Wilson County Medical Society was held on September 25 at Neodesha, in the county hospital. Surgeons and specialists from Kansas City and other places were invited to assist the members of the Society and it is stated that something like forty operations were done. A great variety of cases made the clinic particularly interesting and instructive. On account of the unexpected size of the clinic the regular society program had to be omitted.

There were forty-four physicians in attendance, including the guests of the society. The attendance and the work accomplished justify the efforts of those most active in the establishment of this hospital. We publish in another part of this issue a short sketch of the plans upon which a county hospital is secured.

SHAWNEE COUNTY SOCIETY.

The regular monthly meeting of the Shawnee County Medical Society was held in the Chamber of Commerce rooms, October 1.

Dr. A. L. Skoog, of Kansas City, Mo., gave the society a very entertaining lecture on Brain Tumors, illustrated with lantern slide demonstrations. There was a very good attendance. A report of the custodian of the war fund showed that the members are responding very regularly with their monthly contributions of $10 and the families of the members now in the service are receiving the full amounts promised.

BOOKS.

Obstetrics.

A text book for the use of students and practitioners, by J. Whitridge Williams, Professor of Obstetrics, Johns Hopkins University; obstetrician in chief to the Johns Hopkins Hospital, Baltimore, Md. Fourth enlarged and revised edition with seventeen plates and 685 illustrations in the text. Published by D. Appleton & Co., New York and London.

This work has been almost entirely rewritten and much new material has been added as well as a number of new illustrations. While it at first seems strange that a work on obstetrics should require revision in so short a time, a careful review of the literature of the past five years will show a very marked progress in this branch of medicine. It is unnecessary to go into a description of such a well known text book. The revised edition will no doubt meet as hearty a reception as the earlier ones.

Musser-Kelly Practical Treatment.

Volume IV. By 76 eminent specialists. Edited by John H. Musser, Jr., M.D., Associate in Medicine, University of Pennsylvania, and Thomas C. Kelly, M.D., instructor in University of Pennsylvania. Desk index to the complete set of four volumes sent with this volume. Octavo 1,000 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $7 net; half morocco, $8.50 net.

For the sake of accuracy and complete-

ness in a work already unusually comprehensive, a fourth volume has been published. According to the editors this volume "has been brought out for the purpose of giving the various original contributors opportunity of making in their articles such changes or modifications as have occurred in the therapeusis of those diseases the treatment of which they have already detailed."

In some instances the articles have been completely rewritten by the same author, or by others when the author of the original article could not be secured. Only such subjects are discussed in this volume, therefore, as required such changes or revision.

Accompanying this volume is a desk index to the four volumes. This adds very materially to the convenience of the consultant of this set.

The Roentgen Diagnosis of Diseases of the Alimentary Canal.

By Russell D. Carman, M.D., Head of Section on Roentgenography, Division of Medicine, Mayo Clinic, and Albert Miller, M.D., First Assistant in Roentgenology at the Mayo Clinic. Octavo of 558 pages with 504 original illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $6 net; half morocco, $7.50 net.

What has been accomplished by the aid of the roentgen ray in the diagnosis of the diseases of the intestinal tract is fully appreciated, but the difficulties with which this aid is utilized and the evidence it affords properly interpreted are often underestimated.

This work will appeal most strongly to those who must take the responsibility for properly interpreting the things that are presented in a skiagraph. The authors have had a large experience and splendid opportunities for determining the accuracy of their interpretations.

While this work comprises the results of their own observations, it also includes much of the literature that has appeared in various publications. They say: "Our intent has been to select and arrange in a systematic manner those things which seem not only to be true but worth while, and especially those which we have verified by experience with a large amount of material."

The Elements of the Science of Nutrition.

Third revised edition, enlarged. By Graham Lusk, Ph.D., Sc.D., F.R.S. (Edin.), Professor of Physiology at Cornell Medical School, New York. Third edition, reset. Octavo of 641 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1917. Cloth, $4.50 net.

To those who like to get down to the bottom of things this work of Dr. Lusk's will be a great help. The subject of nutrition certainly underlies all our study of disease and all our progress in the treatment of disease.

The introductory chapter on the elements of the science of nutrition contains only material that seems susceptible of scientific proof and is the key to the work. The subject of starvation is discussed in Chapter III and the regulation of temperature in Chapter IV. The next three chapters are devoted to the influence of protein food; nitrogen equilibrium, intermediary metabolism, respiratory metabolism. In the next chapter the influence of the ingestion of fat is discussed and then the influence of the ingestion of carbohydrates, the intermediary metabolism and the respiratory metabolism. A chapter is given to the influence of mechanical work on metabolism and another to the nutritional value of various materials used as foods, and another chapter to the food requirements during growth. In the succeeding chapters is discussed the metabolism in various pathologic conditions.

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New and Nonofficial Remedies.

Concentrated Solution Sodium Hypochlorite-Mulford.—A 5 per cent aqueous solution of sodium hypochlorite containing free chlorin equivalent to 0.2 to 1.0 per cent of sodium hypochlorite. One volume is diluted with nine volumes of water and the amount of boric acid required (stated on the label) to render the solution neutral is added. This solution is used in the irrigation method of treating infected wounds. The H. K. Mulford Company, Philadelphia, Pa. (Jour. A. M. A., Sept. 1, 1917, p. 727.)

Calcreose. — A mixture containing approximately equal weights of creosote and lime in chemical combination. It is stated that, when administered internally, calcreose has the same actions as creosote. It is claimed that it is not likely to produce gastric distress, nausea or vomiting. Calcreose is sold in the form of powder, as Solution Calcreose and as Calcreose Tablets, 4 grains. The Maltbie Chemical Co., Newark, N. J.

Betanaphthol Benzote-Calco. — A brand of betanaphthol benzoate, complying with the New and Nonofficial Remedies standards. The Calco Chemical Co., Bound Brook, N. J. (Jour. A. M. A., Sept. 8, 1917, p. 821.)

Thiocol-Roche.—Thiocol is the potassium salt of orthoguaiacol sulphonic acid, obtained by sulphonating guaiacol. Thiocol-Roche acts as a sedative expectorant. It has the advantage over guaiacol in that it is comparatively tasteless, does not disturb digestion and is non-toxic. It is claimed to be useful in the treatment of diseases of the respiratory tract, incipient tuberculosis and certain diarrheas. Thiocol-Roche is supplied in the form of a powder, as Syrup-Thiocol and as Thiocol-Roche Tablets, 5 grains. The Hoffman-LaRoche Chemical Works, New York. (Jour. A. M. A., Sept. 15, 1917, p. 911.)

Dichloramine-T, Abbott. — Paratoluenesulphonedichloramide. This is said to act much like chlorazene, but capable of being used in solution in eucalyptol and liquid petrolatum, thus securing the gradual and sustained antiseptic action. Like chlorazene, dichloramine-T, Abbott, is said to act essentially like the hypochlorites, but to be less irritating to the tissues. Dichloramine-T, Abbott, is said to be useful in the prevention and treatment of diseases of the nose and throat. It has been used with success as an application to wounds, dissolved in chlorinated eucalyptol and chlorinated paraffin oil. The Abbott Laboratories, Chicago.

Chlorinated Eucalyptol-Dakin. — Eucalyptol chlorinated at ordinary temperature. It is used as a solvent for dichloramine-T. The Abbott Laboratories, Chicago.

Chlorinated Paraffin Oil-Dakin.—Liquid petrolatum, chlorinated at ordinary temperteure. It is used as a diluent for solutions of dichloramine-T in chlorinated eucalyptol-Dakin. The Abbott Laboratories, Chicago.

Hyclorite. — A solution of chlorinated soda, each 100 Gm. being stated to contain sodium hypochlorite 4.05 Gm., sodium chloride 3.20 Gm., calcium hydroxide 0.25 Gm., inert salts 0.92 Gm. It contains not less than 3.85 per cent available chlorine. Hyclorite has the action and uses of solution of chlorinated soda, U. S. P., but its available chlorine content is greater. One volume of hyclorite diluted with seven volumes of water has the same available chlorine content as neutral solution of chlorinated soda-N. N. R., and is said to be isotonic. The available chlorine content of hyclorite decreases at the rate of about 12 per cent per year. In order that allowance for this deterioration may be made in the preparation of dilutions to be used in the irrigation treatment of wounds, each bottle of hyclorite bears the date of bottling. The General Laboratories, Madison, Wis. (Jour. A. M. A., Sept. 29, 1917, p. 1081.)

Board Named to Collect Data for Medical History of War.

The Surgeon General of the Army, Maj. Gen. William C. Gorgas, has established a board to collect material for the medical and surgical history of American participation in the European War. This board is composed of Col. C. C. McCullock, librarian of the Army Medical Library; Maj. F. H. Garrison, assistant librarian in direct charge of work on the history; and Capt. John S. Fulton, secretary of the Maryland State Board of Health, who will have charge of the statistical work.

One phase of the subject which will be given attention is the advance made in reducing both the number of cases of disease and the death rate among those cases occurring. This reduction is forecast by results during the mobilization of United

States troops for service on the Mexican border and among the European armies engaged in the war.

Some European countries are known to be well along on medical histories of the war. The medical history of the Civil War in the United States is made up of six volumes, whose preparation covered a period of twenty-eight years from the end of the war.

It is planned to have the work done relatively soon after the end of the war, although the immense mass of reports to be gone through and analyzed and the material from them assembled will probably require many months work.—Bulletin.

———R———

Goiter: An Analysis of 125 Cases with a Note on the Treatment.

LEIGH F. WATSON, M.D., Chicago.

Abstract from The New York Medical Journal, Sept. 22, 1917, Vol. CVI, pp. 549 and 450.

The author reviews the records of 125 goiter patients considering the cause, age at onset, and effect of previous operations in certain cases. He illustrates by tables the degree of enlargement, and reports the results following quinin and urea injection.

In 43 per cent no exciting cause could be elicited; in the remaining 57 per cent the onset could be ascribed to a definite exciting cause. Of the 125 cases, 15 per cent was caused by worry; parturition was responsible for 11 per cent, and in 9 per cent the condition was due to puberty. Twenty per cent gave a family history of goiter and 11 per cent of nervousness; 19 per cent had had tonsillitis. Forty-five per cent of the exophthalmic patients first noted the goiter eight years before examination at the average age of 34 years, and the symptoms developed at the age of 40. Fifty per cent gave a history of acute onset, two years before coming under observation at the average age of 29 years. Sixty per cent of the nonexophthalmic patients observed that they developed more marked symptoms of intoxication as the goiter became more chronic.

Before coming under treatment, five exophthalmic patients had had ligation of the superior thyroid arteries with temporary relief; four had had partial thyroidectomies without permanent benefit; three had had pelvic operations without lessening the hyperthyroidism; the condition of one was aggravated by a panhysterectomy; and one had had a tonsillectomy six months before without influencing the severity of the exophthalmic symptoms. Enlargement usually begins in the right lobe, sometimes in the isthmus and least frequently in the left lobe. In 95 per cent of the exophthalmic patients of this group both lobes and isthmus were involved before the goiter became exophthalmic. A majority of the patients noticed increasing symptoms of intoxication as the goiter became more chronic, gradually involving both lobes and isthmus. Eighteen per cent of the mildly toxic patients became exophthalmic after an average period of five years. This study indicates that both nontoxic and toxic goiter occur later in life in nongoitrous localities than in sections where the disease is more prevalent.

The following tables show the results after quinin and urea injections:

Effect of the Injection on Symptoms.

	Relieved	Improved	Not Improved
Exophthalmic. . . .	85 (aver. 4 mos.)	15	0
Nonexophthalmic . .	84 (aver. 2 mos.)	10	6

Effect of the Injections on Goiter.

	Cured	Reduced	Not reduced
Exophthalmic. . . .	80 (aver. 5 mos.)	15	5
Nonexophthalmis . .	75 (aver. 4 mos.)	12	13

Two patients suffering with severe toxic goiter with exophthalmos of several years duration received only slight benefit; later a lobectomy was done without additional relief. Four exophthalmic patients were pregnant two to four months. Relief from hyperthyroidism followed the injection and they went to term without recurrence and had normal deliveries. The number of patients cured is highest in the group of those who came for treatment early in the disease; the benefit received by those who came later was in proportion to the degree of damage done the circulatory and nervous systems. A goiter that has once disappeared has never recurred. A majority of the patients in this group have been un-

der observation for two to four years. The quinin and urea injection has limitations the same as any other treatment for goiter and can be employed only in selected cases. The treatment of the exophthalmic type in young adults is very difficult, and should be attempted only under the most favorable circumstances. If the best results are to be secured, hyperthyroidal patients must have at least a year of mental and physical rest after treatment.

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The Crucial Test of Therapeutic Evidence.

Torald Sollmann points out that if a patient improves after taking a remedy we do not know that he improved on account of the remedy or as a result of the natural course of the disease or for other reasons. In order that adequate allowance may be made for the natural course of the disease, clinical trials of a medicament should be carried out in one of two ways. The first is the statistical method in which alternate patients receive or do not receive the treatment. This method is usually of value only when a large number of cases are available, and even then it is limited or doubtful because it cannot take sufficient account of the individuality of cases. The second method consists in the attempt to distinguish unknown preparations by their effects. In this a patient, or a series of patients, is given the preparation which is to be tested, and another preparation which is inactive, or a preparation the effects of which are to be compared with the first. In either case the investigator does not know when he is giving one or the other, and tries to distinguish them by their effects. If one drug is really of value and superior to the other, this "blind" test will surely bring out such efficiency or superiority. (Jour. A. M. A., July 21, 1917, p. 198.)

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Dichloramine-T.

A new antiseptic which is attracting much attention and which has recently been introduced by Dr. H. D. Dakin of the Herter Laboratory, New York, is Toluene-para-sulphondichloramine, or, as it is commonly known, Dichloramine-T. This antiseptic is used in oil solution, either as a spray or as a direct application.

The Dichloramine-T is dissolved in a chlorinated eucalyptol solution, then diluted to proper strength (from 2 to 7½ per cent) with chlorinated paraffin oil.

In a paper published in the July 7 number of The Journal of the American Medical Association, Dakin, Lee, Sweet, Hendrix, and LeConte tell of the use of this substance in 160 cases of infected wounds. They found that when sprayed upon these wounds or poured into them the length of time required for healing, compared to the usual methods of treatment, was reduced to one-third. The wounds were cured in one-sixth less time than by the celebrated Carrel irrigation method; also, the expense of dressings and nursing, and the technical skill required in the application, was much less than by the irrigation method. It has also been found that Dichloramine-T when sprayed into the nose and throat is an effective method of treating diphtheria and meningococcus carriers.

Dichloramine-T contains about 29 per cent of chlorine, and, as already indicated, can be used in very high concentration. It is also possible to apply to infected tissue solutions from twenty to forty times as great as is possible with the Dakin-Carrel hypochlorite solution.

This substance has been placed upon the market by the Abbott Laboratories, who also supply the chlorinated eucalyptol and chlorinated paraffin oil prepared ready for use, according to the method described by Doctor Dakin. Dichloramine-T promises to be a worthy partner of Chlorazene, the water-soluble antiseptic also devised by Dakin, which was placed upon the market by the Abbott Laboratories and which is proving such a phenomenal success.

Physicians are advised to familiarize themselves with these two antiseptics. Literature and prices will be sent on request to the Abbott Laboratories, Chicago.

Oats High in Energy Value and Low in Price.

To sustain our Allies and our own army abroad it is necessary for this country to ship to Europe 200,000,000 bushels of wheat the coming year, in place of a normal shipment of 80,000,000 bushels. That is why Herbert Hoover says we must eliminate waste of bread and must have one "wheatless meal" each day. It is impossible to view this matter as other than a patriotic duty.

Yet the domestic housewife must look to the matter of serving nourishing meals.

An excellent food to consider as a flavory, nutritious, and easily prepared substitute for bread is oats, either in the form of oatmeal or oatmeal biscuits. As a food that imparts vim, energy, and endurance, oats have long been recognized as supreme. And in the form in which they can in these days be procured for table use, they excel nearly every other grain food in flavor and ease of preparation.

Again, oats have advanced little in price, whereas nearly all other foods have soared. Prices on Quaker Oats—the product of the Quaker Oats Company of Chicago—for example, have advanced, on the smaller package only from 10 cents to 12 cents, and on the large only from 25 cents to 30 cents. Most other foods, for the same nutrition, cost from twice to ten times as much. Even so simple a diet as bread and milk, for the same nutrition, today costs twice as much as oatmeal. The average mixed diet costs four times as much.

It has been estimated by food experts that oats, to the extent that they are used in place of other foods, on the table, represent a lower cost by 75 per cent, on the average, than what they take the place of.

A few specific comparisons may be interesting to the reader:

Per unit of nutrition, bacon and eggs cost five times as much as oatmeal; steak and potatoes cost five times as much; chicken costs six times as much; the average mixed diet four times as much.

In view of the critical food situation and the comparatively low cost of this superior food, the housewife, it appears, would do well to serve oats more often.

———R———

Over 69,000 Men Enlisted in Army Medical Service.

The medical department of the army now has an enlisted personnel of over 69,000 men, compared with 6,600 just before the outbreak of the war. Nearly 13,000 officers had accepted commissions in the Medical Reserve Corps up to October 1; the Dental Reserve Corps now has over 2,600 commissioned officers and the Sanitary Corps about 240.

In organizing for war work the Surgeon General's office has added sections on internal medicine; medical officers' training camps; medical military instruction; psychology; neurology and psychiatry; surgery; infectious diseases and laboratories; head, eye, ear, mouth, and brain; military orthopedics; special hospitals and physical reconstruction; gas defense; food; office development and filing system.

The Surgeon General's office now has over 500 clerks and messengers and more than 100 officers, compared with 140 clerks and messengers and ten officers which made up its personnel in March, 1917. On October 1 the Regular Nurse Corps numbered over 300 members, with about 1,600 members in the Reserve Nurse Corps, as compared with 230 in the regular corps and 227 in the reserve corps in March, 1917.—Bulletin.

———R———

Urea Excretion

F. C. McLean, New York (Jour. A. M. A., Aug. 11, 1917), says urea retention in the sense now used is not a continuous process of piling up urea in the body from inability of the kidneys to excrete it but is applied to any condition associated with an increased concentration of urea in the blood without reference to the nitrogen balance, and the finding of a blood area concentration higher than the normal is urea retention indicating disturbed renal function. The present conception of the mechanism of urea retention is due to Widal and Javal on whose work were based

the later studies of Ambard and Weill and of McLean. He describes the observations reported by Widal and Javal and reports two cases studied by himself which show the same essential features, that is a close parallelism between nitrogen intake, concentration of urea in the blood and nitrogen output, and adds the fact that nonessential variation in the ability of the kidneys to respond to even high concentration of urea in the blood at various levels was demonstrable until a very high level was reached; that is the quantitative relationships that existed between the concentration of urea in the blood and the rate of its excretion remained the same at all levels of protein metabolism. His conclusions are as follows: "1. Urea retention in the sense of a relatively increased concentration in the blood is the result of increased resistance to the excretion of urea through the kidneys. 2. The relatively increased concentration of urea in the blood overcomes the increased resistance to excretion, and the organism is thereby maintained in nitrogenous equilibrium. 3. The laws formulated by Ambard in regard to urea excretion apply in the condition of urea retention under a widely varying range of conditions, as to nitrogen intake and excretion. 4. The numerical value of Ambard's constant changes in urea retention, but the relation of the variable factors to one another remains otherwise unchanged. 5. The occurrence of a high concentration of urea in the blood is not necessarily accompanied by any symptoms suggestive of uremia."

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Tyramin as an Adjunct to Morphin in Labor.

Henrny G. Barbour, Yale University Medical School, aided by a grant from the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, has studied the effects of tyramin on the action of morphin in labor. In labor, morphin exhibits one desirable effect, analgesia, and two untoward results, namely, respiratory depression in the child and delay of labor. Experimental work at Yale having given no support to the use of scopolamin as an adjunct to morphin in labor, tyramin and similar bodies were studied. Animal experiments demonstrated that tyramin (para-hydroxy-phenyl-ethyl-amin-hydrochlorid) counteracted the respiratory depression of morphin. In man, from 40 to 50 mg. of tyramin, administered simultaneously with a therapeutic dose of morphin of 16 mg., completely antagonized the depressant action of morphin on the respiration. The effects of morphin-tyramin on normal labor are being studied at Yale. So far it appears that analgesia is as complete as if morphin were given alone. The respiration of the mother is increased rather than depressed and the condition of the children is quite satisfactory. Further, the uterine contractions have always been increased in frequency and in degree. (Jour. A. M. A., Sept. 15, 1917, p. 882.)

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Volatile Irritants in Collapse.

To determine the action of so-called circulatory stimulants that are commonly administered by subcutaneous injection in shock or allied conditions, Lieb and Herrick have studied the effects of injections of alcohol, ether, camphor and ether, camphor and oil, and turpentine in animals decerebrated so that the pain factor would be entirely excluded. They conclude that the transitory rise in blood pressure that these medicaments produce is entirely reflex in character. The heart plays little or no part in the process, the response being effected through the vasomotor apparatus. The use of injections of camphor in oil, or camphor in alcohol, to stimulate an anesthetized or profoundly prostrated or unconscious patient, therefore, has no experimental justification and its employment is seriously to be questioned. (Jour. A. M. A., Sept. 22, 1917, p. 1008.)

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K-Y Lubricating Jelly.

The composition of this proprietary has not been divulged. Probably a simple tragacanth jelly will produce the same effects as this proprietary preparation. At the German Hospital, Philadelphia, a jelly

made from tragacanth 3 gm., glycerin 25 c.c., phenol 1.5 gm., with water to make 300 c.c., has been used for years. (Jour. A. M. A., May 12, 1917, p. 1430.)

℞

Emetin Diarrhea.

Emetin not rarely produces a bloody diarrhea in the course of its clinical use in the treatment of amebic dysentery. The symptoms and the gross appearance of the stools in emetin diarrhea are almost indistinguishable from those of amebic dysentery. Contrary to a prevalent opinion, children are not especially resistant to the effects of emetin and the dosage for them must be graduated with great care. (Jour. A. M. A., Sept. 15, 1917, p. 916.)

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"Nikalgin."

A recent issue of Collier's contains an article on "Nikalgin." Far-reaching claims for its anesthetic and antiseptic virtues have been made. While no very definite information seems to be forthcoming regarding the preparation, it has been said to be "composed of quinine, hydrochloric acid and urea." This would indicate that "Nikalgin" may be nothing more wonderful than the well known local anesthetic, quinine and urea hydrochloride, or a modification of it. (Jour. A. M. A., Sept. 22, 1917, p. 1024.)

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Weichardt's fatigue toxin which promised to open the way for a scientific cure for fatigue has fallen by the wayside. It has been shown that it really does not exist.

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The Medical Association of the Southwest will meet in Kansas City, Missouri, October 15, 16, 17. Headquarters will be at Hotel Muelbach. Clinics at the various hospitals every morning.

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Lord Esher writes "His (the surgeon general's) triumphs and those of the royal army medical corps have been achieved in spite of obstacles that the subordination of science to ignorance and of elasticity to military disciplin explains but cannot justify."

AN ANNOUNCEMENT

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Mastoiditis with Intracranial Complications.

E. N. ROBERTSON, M.D., Concordia.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

The subject of this paper has to do with a case which it was my privilege to take care of during the spring of 1915. Every aural surgeon and many physicians see complicated cases of mastoiditis, but it is seldom that one has an opportunity to observe practically all of the serious complications manifested in one individual.

The patient, David G., son of a government architect, was a boy eight years of age. His parents and two brothers aged ten and twelve were in good health. David had always been well except during the past winter, when he had suffered with occasional attacks of earache in the right ear, which, however, were always relieved by heat and other home remedies. The ear had never discharged.

On Tuesday, April 13, he took sick with fever and rapid pulse and a physician was called. He was looked over quite carefully but no diagnosis was made and he was treated expectantly for a few days. I understand that during this time the pain in the ear was so slight that it was not suspected of being the cause of his trouble. On Thursday, April 15, following a dose of calomel, he vomited for the first time. On Friday morning his temperature was 104 degrees and pulse 140. About 9 a.m. Saturday, April 17, he had a chill lasting several minutes. I saw the boy at eleven o'clock this day in consultation with the local doctor. Temperature was 102½ degrees and pulse 120 and patient appeared a little dull and very sick. Ear drum was bulging and posterior superior wall of canal swollen, but not much redness. Some tenderness elicited by firm pressure over mastoid and there was a slight redness over the mastoid emissary vein. Immediate opening of the mastoid was advised.

He was taken to the hospital and we found a sclerosed mastoid with many little pockets of pus extending down to the tip. Also a large extradural perisinus abscess at the knee of the sigmoid, where the sinus wall was compressed, making a pus pocket one-eighth to three-sixteenths of an inch deep and half an inch long. The sinus wall did not resume its normal shape and fullness after evacuating the pus. In two other places along the sigmoid portion of the sinus the bone was necrotic and I therefore exposed the sinus over most of the portion. The dura about the sinus was apparently healthy, except in the region of the abscess. The pus was thin and watery, like streptococcus pus. The mastoid antrum and cells were opened and thoroughly cleaned out. The ear drum was incised and normal salt solution washed through the antrum into the external auditory meatus.

That evening, Saturday, the patient brightened up and temperature went down to 99.1 degrees and pulse to 94. However, by the next morning temperature and pulse were up again and by 6 p.m. were 104 degrees and 130 respectively. At midnight Sunday, temperature was 98.6 degrees and pulse 98. During the following thirty-six hours temperature fluctuated from slightly

above normal to 104.5 degrees. The wound was uncovered, packing removed, and drainage found to be good. In spite of this, however, symptoms of a serious nature were developing rapidly. There was pain in the back of head and ear and stiffness of neck. The slightest jar of the bed or patient caused him to cry out and he was very restless. There was some photophobia and the nurse noted that he was slightly delirious on two occasions during the night. The left ankle swelled and became tender to pressure. The right elbow was likewise affected a few hours later. He was greatly prostrated and perspired freely with each remission of temperature. A blood count was made revealing a leucocytosis of fourteen thousand.

Tuesday, April 20, he had a sharp pain in the right lung and began to cough. He also developed a sore spot in the calf of his left leg. About 1 p.m. this day I determined to explore the wound again. Drainage was apparently good and communication still existed between the antrum and external ear. The sinus wall at the seat of the abscess, however, was still flattened out and had a dark discolored appearance. On opening the sinus a thin parietal clot was found but the blood passed freely through the sinus both ways. Realizing this to be the most dangerous form of sinus trouble the sinus was plugged at both the torcular and jugular ends and the jugular vein isolated and resected. For a couple of days following this the temperature and pulse continued to fluctuate with less variations and then settled down to about 99.5 degrees and 90 respectively. All of the foci of metastatic infection—ankle, elbow, etc.—began to clear up except the calf of the left leg, which remained sore and indurated for some two weeks longer.

From April 23, Friday, to April 27, temperature ranged from 98 degrees to 101 degrees per rectum and pulse from 68 to 84. Paralysis of the external rectus of the right eye developed and caused diplopia. While he took nourishment during this time, his tongue became badly coated, he lost considerable flesh and began to sleep a great deal, being very restless when awake and complaining of pain in the affected ear. He also had a number of attacks of frontal pain lasting for a second or two. Wednesday, April 27, he refused food for the first time and slept some twenty hours out of the twenty-four.

At this time I thought something should be done to relieve the intracranial pressure which had been gradually developing during the several preceding days. Desiring counsel before doing further operative work, Dr. R. C. Smith of Beloit was suggested and called. We found at this time a slight choked disk and we were agreed as to the pressure symptoms, but Dr. Smith advised waiting a day or two before undertaking a third operation. The somnolence and loss of volition increasing, on Thursday, April 28, we determined to explore the brain and Dr. Smith was called to assist. The dura was exposed under the temporo-sphenoidal lobe. Here we found a pulsating and slightly discolored area of dura which was carefully incised, the incision extending for a short distance into the cerebral cortex. There was an immediate flow of cerebro-spinal fluid, filling the wound. While observing the outflow of this fluid the patient's pulse went from 65 to 120. Drainage being established, the wound was lightly packed and the patient returned to his room. By evening he had brightened up and was better in every way than he had been at any time during his illness. The wound drained very freely for several days, at times soaking all dressings and soiling his pillow. With the free drainage his abducens paralysis began to recover and he was less annoyed by double vision. Four weeks later he had quite normal action of the affected muscle. For a number of days following the profuse drainage, pus could be seen coming from the dural opening and the dressings were frequently saturated with pus. The tract leading to the dural opening was kept open and the rest of the mastoid wound allowed to granulate up. Once during the stage of pus discharge the drainage was

blocked for a short time, resulting in sudden rise of temperature to 102 degrees and vomiting. Removal of dressings and slight spreading of the opening into the cerebral cortex relieved the situation and brought conditions back to normal.

The boy left the hospital May 15 feeling well enough to get around in the yard and play with his toys. The family left our city during the summer but the father has been kind enough to write me occasionally, his last letter received in January, 1917, enclosing a picture of David and telling of his fine condition of health. He goes to school and does his part in work and play. Even the hearing in the affected ear is only slightly impaired.

I take it that to the average physician there are a number of interesting features in this case. Please note that during the weeks, possibly months, of the progress of the infection which succeeded in honeycombing this sclerosed mastoid, perforating the bone over the sigmoid sinus and producing a perisinus abscess with such compression that the dura over the sinus did not resume its normal fullness after three days following the evacuation of the pus, the only symptoms noted were an occasional slight earache so slight that the parents did not deem it necessary to call a physician. Even on the day a doctor was first called the symptoms were principally fever, rapid pulse and prostration. Pain in the ear was not complained of and there was no discharge. A number of cases of mastoiditis without apparent middle ear involvement have been reported by Chas. E. Perkins of New York City and it is possible that our case may have been originally one of primary mastoiditis of low grade infection.

Another feature of special interest was the association of symptoms of meningitis with those of sinus infection. At the first operation I was minded to open and inspect the sigmoid sinus and as we know now this would have been justified, but I was content in performing a complete exenteration of the mastoid and waiting the effect of what seemed to be sufficient drainage. The first symptom which gave real alarm was a pronounced chill on the morning of the operation before the patient was removed to the hospital. When I saw the patient and inspected the ear, this chill suggested one of two things, either a beginning circumscribed or general meningitis or a sinus infection. There were no chills after the first operation and yet for nearly forty-eight hours the temperature and pulse fluctuated with great variation, yet not as marked as one would expect in uncomplicated sinus involvement. The intense frontal, parietal and occipital pain, stiffness of neck, photophobia, extreme irritability and the tendency of the temperature and pulse to stay up after the first few fluctuations, is what determined the delay in exploring the sinus. A blood culture or a spinal puncture would have been of interest but it would not have changed either the course of the disease or our method of handling the case. It was the development of the metastases in the ankle, elbow, calf of leg and lastly the pleural pain and cough which forced me to the second operation. The obsence of chills was no argument against sinus involvement, since aural surgeons agree that children are not so likely to have repeated chills in this condition as adults. Subsequent events proved that we were dealing with both a localized meningitis as well as sinus infection.

The next point of rather unusual incidence was the appearance of paralysis of the external rectus muscle of the eye corresponding to the side of the infection. A number of cases of abducens paralysis complicating mastoiditis have been collected and reported in this country by Perkins. It was Gradenigo, in Europe, however, who first called attention to this symptom and associated with it the severe frontal and parietal pains and interpreted their significance. In our case it is difficult to say whether the paralysis was due to an extension of the sigmoid clot into the inferior petrosal sinus and thus causing pressure on the sixth nerve near the exit from the brain or whether it was caused

by the increase of pressure in the middle fossa, consequent upon the meningeal inflammation. The fact that the paralysis cleared up so rapidly after our incision in the middle fossa would lead us to believe it was due to the latter rather than the former.

With the slow pulse and slight fever, retarded cerebration, somnolence, recurrent pains and restlessness when awake, we began to suspect brain abscess. With the appearance of choked disk we felt more certain. Finally sleeping twenty hours out of twenty-four left no doubt that we should explore the brain. When visited by Dr. Smith and myself on the morning of April 28 he would not respond to any questions put to him and it was almost impossible to rouse him.

Owing to the fact that there was considerable pus coming from the dural opening after the excess of cerebro-spinal fluid had drained away we must have had a circumscribed purulent meningitis with swelling and congestion of the cerebrum and local infection of the cortex. This would be the same thing as superficial brain abscess. The point especially worthy of note is that it is possible to have either a serous or purulent localized meningitis, producing symptoms of intracranial pressure so prominent as to simulate brain abscess and yet be relieved by simple incision of the dura and cortex over the affected area. Kerrison in his work on the ear records several cases of what he calls meningo-encephalitis with symptoms quite like those of the case here reported, where after incising the dura in the suspected region, large quantities of cerebro-spinal fluid came away during the days following, without pus and with recovery. The presence of pus in our case is what permits us to designate it as one of superficial brain abscess.

———R———

Cholecystectomy.

HUGH L. CHARLES, M.D., Atchison.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

The mooted question of gall bladder therapy is still considered one of the most important problems of modern medicine and surgery. Many papers are written and many questions propounded on this subject.

Perhaps the principal reason for this is the fact that, except possibly in pelvic troubles, in no condition is secondary operation after drainage so frequently necessary as is the case after drainage of the gall bladder. Nor is this fact due, as a rule, to faulty technique. The surgeon who is extremely careful in every step of his work of gall bladder drainage seems to have about as many recurrences of the original trouble as does the man of less care and experience who, perhaps, does his work in a more or less slipshod manner, paying little attention to the covering of raw surfaces or of placing sufficient drainage into his wound.

The average surgeon too seldom examines carefully the condition of the pancreas and of other surrounding organs during this operation and he may even handle the endothelial surfaces rather roughly. Sometimes he even attaches the gall bladder to the parietal peritoneum.

It seems to make little difference in these cases whether the incision be a median, a right rectus or a transverse one; nor does it make any difference whether drainage be made by way of the wound or by a stab wound—in from two to five years after the operation the patient returns for relief from gall bladder trouble.

While the post-operative pain following cholecystostomy is considerably less now than used to be the case when the fundus of the gall bladder was sutured to the abdominal wall, it is still a fact that the drainage tube, particularly if left longer than ten days, tends to form adhesions almost as troublesome as those following suturing. One very annoying result of the drainage operation is the persistent fistula which too often remains. Another trouble which may follow this operation comes, occasionally, from the failure of the chromic gut purse-string suture around the tube in the gall bladder to absorb or to its becoming calcareous. It is much more difficult to main-

tain asepsis during a drainage operation and it is also harder to do the necessary, careful peritonization of all exposed or raw surfaces during this operation than is the case during the more radical operation.

Because of the difficulties incident to the drainage operation and the unfavorable results following it, the larger clinics of the country have been forced to resort to removal of the gall bladder as a routine procedure rather than to its drainage. Fortunately, whenever the technique of cholecystectomy is once well learned, it is a less difficult operation and can be done more quickly than can cholecystostomy. Not only are the ultimate results of the more radical operation more desirable but the immediate effects are even more pleasing. The post-operative treatment is shorter and less complicated and the patient convalesces more quickly and, best of all, the mortality following the more radical operation is little greater than after the other operation.

As is the case in all surgical procedures, good judgment is a very valuable acquisition to a surgeon who does cholecystectomy because in not every case of gall bladder trouble may this operation be done. This operation is not to be chosen if the gall bladder is undergoing an acute inflammatory attack except it be gangrenous; nor should it be undertaken in cases where the glands along the cystic duct and artery are infected. Treatment in septic cases must indeed always be conservative, but these cases are usually emergency cases.

Fortunately, removal of the gall bladder does not damage bodily metabolism in any way, which is no doubt due to the fact that the gall bladder has low functional use, if any, and belongs in a class with the appendix. A few surgeons, however, think it good practice to leave the cystic duct intact after cholecystectomy, as it usually dilates sufficiently to serve as a more or less satisfactory receptacle for bile.

Gastric symptoms may still persist after cholecystectomy, but they are generally due to a chronic pancreatitis—a fact which suggests the propriety of drainage of the common duct in all cases in which this condition is suspected.

It is quite possible that in younger patients removal of the gall bladder may not always be a desirable thing to do owing to the fact that the pancreas or its ducts may, later, need the indirect drainage which the gall bladder affords; but in patients over thirty years of age, this question need not be considered. In the older patients it must be remembered also that not infrequently malignant growth may follow bladder drainage—cystostomy.

When a gall bladder case calls for operative interference, many questions must be taken into consideration which can often not be decided until the abdomen has been opened. One of these is the condition of the cystic duct—as to whether or not it is so completely contracted and closed that it can never again become patent or whether it has undergone calcareous degeneration.

Fortunately, comparatively few gall bladders, even those which require operation, present any of these unfavorable conditions, and it therefore remains true that, usually, when one has a good reason for doing anything at all to the gall bladder, it had best be removed.

The intimate relationship between the gall bladder and the peripancreatic lymph nodes is an important element to consider in all these cases. An infected gall bladder acts as a source of lymphatic infection just as a focus of infection anywhere else in the body acts. Is it likely that mere drainage of an infected gall bladder will be any more effective as a cure for this condition than drainage of a pus tube is a cure for tubal infection and its possible results? Each one has a mucous lining and, if removal is the better remedy in the one case, it is also the better in the other.

The objection to cystectomy on the ground that removal of the gall bladder removes the guide through a mass of adhesions in a possible secondary operation on the common duct, loses its force when it is remembered that when cystectomy is properly done the mass of adhesions which follows cystostomy does not develop.

While a higher mortality is ascribed to cystectomy than to cystostomy, it is quite possible that this higher death rate is due to the fact that cystectomy is done more frequently in the severer cases and that the operation is, therefore, not so much to blame as the disease which calls for it. Not infrequently misfortune following this operation is due to the fact that the operator has overlooked a diseased condition in the common duct at the time of operating.

Subserous enucleation of the gall bladder from below upward and the careful covering of raw surfaces left by its removal, prevents the formation subsequently of trouble-making adhesions. As has been suggested, the falciform ligament may be used for this purpose.

I am firmly convinced of the necessity for removing the streptococcic and the so-called "strawberry" gall bladder surrounded by adhesions. These cases give continual pain and simulate a duodenal ulcer for the reason that a few firm bands of adhesions are frequently attached to the duodenum or even to the pyloris, and it is practically impossible to differentiate between the symptoms they cause and those caused by an ulcer. Gall bladder drainage only aggravates the symptoms in these cases.

For a simple, uncomplicated case of gallstones, the removal of all stones and proper drainage is quite sufficient. To do more than this is simply incurring unnecessary risk—a risk which should, however, be assumed where disease of the mucous lining of the gall bladder or of its wall exists or if adhesions to surrounding organs are present.

Some Observations on Gall Stones.

W. J. ALDRICH, M.D., Independence.

Read before the Montgomery County Medical Society, September 21, 1917.

"Don't worry. If you had gall stones you would know it." Such was the reply of a certain physician the other day to a patient of mine who had consulted him to ascertain whether he had gall stones, I having said to him that an obscure stomach trouble of some years standing might be a reflex disturbance dependent on gall stones.

Now that reply satisfied my man—yes, it more than satisfied him; it tickled him—and he came back to tell me that gall stones were to be no longer considered in his case. Can gall stones be thus easily disposed of?

"How would you know?" I asked him.

"Why," he replied, "gall stones always cause an agonizing pain in the side and jaundice, and I have never had either the pain or the jaundice."

Now I have heard remarks similar to that expressed so often that I feel there is quite a general belief among physicians, and especially among the older ones, that absence of that sudden and agonizing pain and absence of jaundice excludes gall stones from further consideration in any case.

But the diagnosis of gall stones is not so simple, for they do occur very frequently without causing either pain or jaundice. Naunyn states that 25 per cent of all women over 60 years of age have them, but certainly that number of women do not have a diagnosis made. I have many times found them post mortem when I had never suspected their presence during life. It is therefore a fact that gall stones may and do exist without causing symptoms. Such cases require no treatment.

The typical gall stone attack is easy to recognize. It is so classical that it cannot be overlooked. The agonizing pain in the right hypochondrium, sudden in onset, radiating to the right shoulder, with perhaps a history of previous similar attacks, makes a picture so plain that it is not often unrecognized. It is not necessary that gall stones be found in the stools to make the diagnosis positive. Formerly I always searched the stools for the offending stones but I don't remember that I ever found any, and I am now rather skeptical about gall stones passing; in fact I do not believe it occurs except in the case of very small ones, and that in those instances where large stones have been found in the bowel

they reached it not by passing through the duct but by ulcerating through the gall bladder and intestinal walls.

Neither is it necessary that jaundice occur. In fact jaundice will not occur except in those cases where the stone has passed into the common duct and obstructs the flow of bile. Granting that a small stone does occasionally pass, so long as it remains in the cystic duct it causes no obstruction and consequently no jaundice. Of course the finding of a stone is conclusive evidence and the occurrence of jaundice following a suspicious colic is presumptive evidence of gall stones.

You may ask, and very properly, what causes the pain if it is not the stretching of the duct by the passing stone. In my opinion the pain in a large majority of these cases is caused by a spasm of the gall bladder, and that spasm is due to a movement of the stones in the gall bladder. As proof of this let me call your attention to the fact that a single hypodermic of half a grain of morphine usually stops the attack. It does it by relieving the spasm, and during the time that the gall bladder muscles are paralyzed by the morphine they recover from the soreness and there is no tendency for the pain to recur. Now if a stone had engaged in the cystic duct—if it had actually started on a trip down toward the intestine, the morphine might stop the spasm and pain, but when it wore off, the stone being still in the passage would excite a return of the pain.

I have spoken of a class of cases that cause no symptoms. With your permission I will modify that statement and say that many cases of gall stones exist which do not cause the classical symptoms of colic, etc., but they do cause symptoms which have not until recently been recognized and attributed to them. I refer to those indefinite digestive disturbances of long standing whch do not respond readily to treatment.

You all know how often we find tenesmus of the urinary bladder to be caused not by a cystitis but to influences outside the bladder, namely, mal positions of the uterus, lacerations of the cervix, piles, fissure in ano, constipation, etc., the bladder being affected reflexly and doing the complaining for other parts. So it is with the stomach. We find the stomach turning itself wrong side out in many ailments that have no connection with the stomach, as in renal colic, acute appendicitis, obstruction of the bowels, and many of the acute infections. Now there are a great many cases of gall stones which never manifest their presence in the classical manner, but which do cause a reflex disturbance of the stomach, and in such cases of chronic indigestion, where no cancer or ulcer or other lesion can be found, look for the trouble outside the stomach. It may be caused by gall stones.

Now it is not my purpose to give you an exhaustive essay on all the affections of the gall bladder, any recent text book will give a better description of them than I could possibly do, but I have tried to point out to you some of the fallacies of diagnosis as I have seen them, and in closing I desire to leave with you two thoughts: First, that in a colic *suspicious* of gall stones, do not hesitate to make a diagnosis just because jaundice has not followed it; and second, that gall stones are a frequent cause of an obstinate indigestion.

———B———

Intercostal Neuralgia.

J. J. HARRINGTON, M.D., Osawatomie.

Read before Miami County Medical Society.

Neuralgia is a functional disease of the sensory fibers of nerve trunks or their branches. Its chief characteristic is pain.

The pathology is very brief, since there is neither inflammation nor any appreciable lesion in the painful part. However, in certain so-called neuralgias of long duration there is really found a low grade neuritis. This is especially true in the trigeminal and sciatic forms. Some derangement of the cells of the spinal or cerebral sensory neurons appears to be the best theory advanced.

The intercostal nerves are the anterior

or ventral divisions of the twelve dorsal nerves and their name is derived from the fact that they run in the intercostal spaces. They supply the muscles and skin of the chest and abdomen. Next to trigeminal neuralgia this is the most important form. Prior to ten years of age and after fifty it is extremely rare; the predisposing age being between twenty and thirty-five. It is seven times more frequent in women than in men. Dana has given corset pressure as one of the reasons for this difference.

Among the several causes of intercostal neuralgia, anemia may be mentioned first. Anemia, from whatever source, favors the occurrence of neuralgia. "It is the cry of the nerve for more blood." The anemia may have been produced by malaria and then the paroxysms of pain may recur with the same regularity as those of the fever.

The most important and frequent symptom of lead poisoning next to colic is neuralgia and here the anemia is marked.

Toxemia produced by an infectious disease, uremia, diabetes, syphilis or obstinate constipation is an exciting cause. In cases of toxemic origin the pain may be due to the irritant action of the poison that is distributed to the nerves by the blood.

Neurasthenia and hysteria are prominent predisposing causes. Occasionally an attack results from exposure to cold or from muscular strain.

A minority of cases are brought on reflexly by derangements of the stomach, pelvis or heart.

Scoliosis and all deformities of the spinal column favor the onset of this disease.

Intercostal neuralgia affects the left side more often than the right, and rarely both sides. It may occur abruptly but usually according to Flint there are premonitions —a feeling of weight, sense of heat, tingling or other uncomfortable sensation in the side of the chest about to be affected. When the disease becomes fully developed, there is a constant dull pain along the course of the involved intercostal nerves or branches. The interval between the acute pain may be only a few seconds. There is a decided tendency for the pains to shift from one spot to another. The well known diagnostic symptom is the existence of tender points. There are three locations where these may be found: First, behind near the dorsal vertebrae at the point of emergence of the nerve; second, laterally in the axillary line of one, two or three intercostal spaces. Here the lateral cutaneous branches pierce the external intercostal, and the serratus magnus muscles; third, anteriorly in one or more intercostal spaces near the junction of the sternum and costal cartilages. In this situation the nerve passes through the internal intercostal and pectoralis major muscles. It is very rare to find all three points of tenderness. Frequently each one is limited to a space small enough to be covered by the finger. If pressure is made with the end of the finger, the tenderness is often found to diminish or disappear for a time.

The severity of the tenderness as a rule is in proportion to the acuteness of the spontaneous pain. It is most marked during the paroxysm and may disappear during the interval. After the pain has continued some time there often follows tender skin, redness and even swelling. These phenomena including edematous swelling and increased secretions are vasomotor symptoms. Sudden or violent movements, as coughing or sneezing, are quite liable to cause a paroxysm of pain.

Cold or hot applications were unbearable in a case seen recently. In the same patient there was severe pain along the inner side and anterior portion of the arm, radiating from the region of the heart. This with a rapid pulse resembled angina pectoris.

It might be explained by the fact that the first intercostal nerve joins the brachial plexus, and also a branch of the second intercostal nerve supplies this area of the arm.

In another case, a woman aged 35, of neurotic temperament, neuralgic pain was complained of not only along the intercostal spaces, but also over the abdomen.

The rectus muscle was contracted, forming a firm lump. The tenderness was so severe as to cause a doubling-up of the body. These attacks, each lasting from three to five days, had covered a period of twelve years, the interval being one or two months with no relation to the menstrual period. Though hysteria was at first thought of, it is most likely that the lower intercostal nerves as well as the upper were affected, as evidenced by the location and character of the pains.

Intercostal neuralgia is chiefly to be distinguished from neuritis, effects of pressure on nerves, rheumatism and pleurisy.

If there has been an injury, one would think of neuritis. In diseases of the lungs and pleura, tuberculous neuritis is possible. The pain of neuritis is more continuous and is frequently on both sides. The tenderness follows the course of the nerves. Anesthesia succeeds hyperesthesia and in the later stages muscular wasting often takes place.

Herpes Zoster may be considered here. It is probably always the result of neuritis due to inflammation of the ganglion upon the corresponding posterior root. Zoster is characterized by grouped vesicles along the course of the nerve. The pain may precede or follow the eruption. The former is usually mild and grows less as the vesicles develop. The pain that follows the eruption is often very severe.

Neuralgic pain not truly functional may proceed from a lesion as a tumor, aneurism, or foreign body involving or pressing upon the nerve. The traction of a scar is a like cause. Signs of neuritis would sooner or later develop.

If due to disease of the cord as myelitis or tabes, or of the vertebrae as Pott's disease, the characteristic symptoms of these lesions would distinguish from intercostal neuralgia.

It is not always easy to eliminate rheumatism of the intercostal muscles. Pain in pleurodynia is especially increased by change in the position of the body. The points of tenderness are absent. There is often diffuse tenderness from the beginning.

Pleurisy is diagnosed by the fever, the physical signs and the sharp pain made worse by movements of respiration rather than by those of the body.

Mastodynia is a rare form of neuralgic pain in anemic debilitated women, characterized by pains in the region of the mammary gland. It may develop during pregnancy, especially the latter weeks, Occasionally it is met with during lactation and may be so severe as to interfere greatly with nursing. Carcinoma of the breast may cause mastodynia. The pain is located deep in the breast, is continuous with sharp attacks at times. The skin about the nipple may be congested and very tender and the entire breast red and swollen. Tender points may be found along the spinous processes of the second to the sixth dorsal vertebrae. The location of the pain is the diagnostic feature.

The duration of intercostal neuralgia is often several weeks. Sooner or later, if not relieved, the pain subsides but with a greater tendency to recur than when relieved by treatment.

When the attacks are frequent and the distribution extensive, the chance of permanent cure is not good. Many of the cases with the severest pain are the easiest relieved.

Hereditary cases and those occurring after fifty are said to be very obstinate to treatment. In conclusion, the treatment of intercostal neuralgia during the attack includes a quiet, well-warmed, well-ventilated room. Local applications, such as the hot water bottle, one of the kaolin compounds, or ointment of belladonna are often appreciated by the patient. A cotton jacket is of benefit protecting against drafts of cold air and keeping the part warm. Elimination is of great importance. To relieve pain a combination of caffeine and phenacetine is considered by some to be highly useful. The hypodermic injection of morphia and atropine is the promptest and surest remedy, but to be avoided if possible.

In a very stubborn case after using atro-

pine gr. 1/100 three times daily for two days, the pain was much reduced and stopped soon after by the extract of belladonna in glycerin applied locally. Another case responded well to the use of the latter alone. Good food is especially important. During the interval, tonics and appropriate drugs for anemia and toxemia if present are indicated. Electricity is of uncertain value. As a last resort, nerve-stretching and nerve-resection have been performed. Finally, the highest authorities agree that the best results will be obtained when the treatment is directed toward the cause.

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Cancer of the Breast

Parker Syms, New York (Journal A. M. A., Aug. 11, 1917), describes the anatomy and physiology of the breast, showing that it is one of the most variable structures in the body, constantly changing in structure and function. It would be impossible to recognize it structurally at any two times. He also describes its embryology as known, altogether showing that it is undergoing constant change during life. Its epithelium is in a condition of unrest. He briefly gives the pathology of chronic cystic mastitis which is in his view the predecessor of cancer. Our present conception of cancer is that it is a growth of more or less atypical epithelial cells, the distinctive feature being the fact that these cells are growing in the stroma outside the basement membrane. Today we believe that a cancer cell is an otherwise normal functionating epithelial cell which for some reason or other has taken on the faculty of independent growth. Practically all authorities agree that cancer of the breast is made up of cells from the true parenchyma of the gland. He gives the views of prominent authorities as to cystic mastitis being the predecessor of cancer of the breast, and says that usually in these cases the pathologist has studied only the tumor itself, and not the rest of the gland. Prolonged irritation is recognized as one of the most frequent contributing causes of cancer, and the growth of cystitic mastitis is really a response to some form of irritation and a progressive disease that will proceed a malignancy unless its progress is arrested. If we can learn just what are the precancerous stanges we can certainly apply that knowledge to the prevention of cancer.

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Absorbable Metal Clips for Ligatures

E. Wyllys Andrews, Chicago (Journal A. M. A., July 28, 1917), points out the advantages of quickness in applying metal clips for ligatures and sutures closing deep layers and deep vessels, and answers the objections that have been offered to the method. The objection of leaving foreign bodies behind is the occasion for the article, which refers to his efforts to find an absorbable metal or alloy of metals which will ultimately disappear in buried wounds. Pure magnesium is an ideal absorbable metal, but is brittle and weak in small pieces, and Andrews gives an account of his laboratory research to find the proper metal or alloy. He has tried mixtures of aluminum, magnesium, cadmium and zinc, but thus far his efforts to alloy magnesium have not been quite successful, but other experiments are in progress which he hopes will be more so. At present he sums up his conclusions as follows: "1. Speed and safety of hemostasis is much improved by using metal clips. 2. If of absorbable metal or alloy they do not act permanently as foreign bodies. If of ordinary metal, they should be attached to cords or chains and later drawn out. 3. Several pure metals are absorbable, but have not quite ideal physical qualities. 4. Efforts to make ideal alloy are encouraging but not yet wholly successful. 5. Other appliances—plates, screws, buttons, bone splints, and wire sutures can also be made of absorbable alloys when perfected."

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The Medical Society in War Times.

If there are any reasons why a county society should abandon its meetings at this time, there are many more and better reasons for its making unusual efforts to meet regularly and add every eligible physician in the county to its membership.

In most all county organizations there are a few men who have furnished the time and the work and the energy to keep it going, for the benefit of the others. As was to be expected a good many of these men have joined the Medical Reserve Corps or some other medical corps of the army. In some counties those who are left at home are ready to lie down on the job and abandon the Society.

The privileges of a medical society, and especially of a unit of the Kansas Medical Society, are available equally to all its members, and every member is under the same obligation to the Society. The fact that some of the members have, for a time, been relieved of all of the responsibilities of the Society's existence, except the payment of dues, does not release them from their obligation to assume those responsibilities when the need arrives.

There are a considerable number of men who feel that it is worth while to belong to the Kansas Medical Society for the standing it gives them, if for no other reason. But the only provision for membership in the State Society is through membership in a county organization.

The State Society should make some arrangement by which the dues of all those members who are in the service of our country will be paid for them or remitted. That would be just and fair and no doubt some such action will be taken. But in order that these men may retain their membership in the State Society the organization in which their membership is held must be maintained. It is one of the duties of those who remain at home to see that these county organizations are kept active and progressive.

Some of the county societies have shown a true fraternal spirit by adopting such regulations as will protect and care for the practices of its members who have joined the army service, and give their families a very liberal share of the income. But suppose the members of these societies that stay at home should abandon the organization, then all the fine plans and good resolutions would count for nothing. One cannot believe that a society which has shown that much fraternal spirit is likely to go to sleep because some of its members have gone away, but there are a few organizations that seem to be very indifferent to the present situation.

There are a few county societies in which so many members have been commissioned that it may not seem possible for the few that are left to have regular or profitable meetings. They can, however, have joint meetings with neighboring county societies that will more than likely be of greater value and interest to them than the regular meetings they have formerly had.

The medical profession is destined to play an important part in this war and, from the present outlook in the war zone, the demand upon its resources has hardly begun. The preliminary call for medical officers has not yet been fully met and it is not improbable that three of four times as many will yet be required.

If there ever was an imperative demand

for perfect organization it is at this time. There will be many issues, regarding the interests and welfare of those in the service, that can be brought to a satisfactory conclusion only by the perfect co-operation of the medical men at home. There will be many occasions for the concerted action of those at home, in the protection of our own rights and privileges against vicious legislation, and in the enforcement of such provisions as the exigencies of war may make necessary for the conservation of the public health.

Weekly Health Index.

As a health index the Bureau of the Census is publishing each week mortality reports from the largest cities in the United States. The report herewith is the fourth issued.

There are given for each city the total number of deaths reported (still-births excluded), the death rate, the number of deaths under one year of age, and the proportion of infant deaths to total deaths.

Where the data are obtainable for the previous five years, averages for the corresponding weeks are given for each city.

Of course it is impossible to draw any accurate conclusions from the death rate for one week. The fluctuation from week to week is considerable. From a comparison of the rates of different cities, however, some interesting, if not instructive, facts may be determined.

For the week ending October 27, the death rate in Memphis was 21.3, in Birmingham 20.3, and in New Orleans 19.9. For the same period the death rate in Spokane was 6.3, Portland 6.9, Seattle 7.3 and Oakland 9.6. In Philadelphia the rate for the same period was 13.7, for Chicago 13.1 and for New York 11.3. The average rate for the corresponding week during the previous five years was for Philadelphia 13.2, Chicago 12.2, New York 12.2.

Free Examination Day for Tuberculosis.

The Kansas Association for the Study and Prevention of Tuberculosis has announced that December 6 has been set as the date for Free Examination Day. This association has some literature which will give those interested in the work full information as to how these examinations are conducted. This movement has the approval of the Kansas Medical Society. Literature will be furnished to all who will write to Dr. J. L. Everhardy, Leavenworth, Kansas.

Universal Military Training.

In another place we reprint some resolutions adopted by the Congress of surgeons recommending a system of universal military training. The approval of this plan by so large a body of the leading medical men of the country should have a favorable influence in overcoming the sentiment which has hitherto opposed it.

Whether the needs of the present war may require the adoption of such a plan, or whether the future safety of the republic rests in a more pronounced militarism, are questions with which our legislative and executive powers must concern themselves. It is the province of the medical profession to give support to whatever will improve the health and endurance of the race, raise its moral and physical status and provide a more vigorous manhood and a more dependable citizenship. So that it may be irresistable in times of peace and unconquerable in times of war.

The Inactive List.

The Surgeon General has sent out a notification to those in the inactive list of medical officers to continue their practices until they are notified that they will be called. At least fifteen days notice will be given.

The assurance of fifteen days in which to make final preparations for leaving and winding up business will be highly appreciated. The uncertainty has made serious havoc with the practices of a good many of the men who have accepted commissions and has, no doubt, delayed the

acceptance of commissions in some cases. Some of the men have disposed of their practices or made arrangements for substitutes before accepting, and in such cases they can do nothing but wait for the call.

In at least a few instances those who have received commissions have found their patrons were seeking other medical advisors long before it was necessary for them to leave.

The people most certainly commend the doctor who applies for a commission, but they sometimes too quickly resign themselves to the probable loss of their family physician and busy themselves in selecting his successor, while he is left to struggle through a period of anticipation and uncertainty without business and without salary.

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The Kansas City Doctors and the Liberty Loan.

In reply to a criticism of the Kansas City doctors by the chairman of one of the Liberty Loan committees, Dr. George C. Mosher, president of the Jackson County Medical Society, gave the physicians' side of the matter in a letter to that body.

"I feel as your president in duty bound," Doctor Mosher said, "to express the regret that fills me that our attitude as an organization is made a target for adverse criticism, and, lest it should appear that I have been an official slacker and our men derelict in our patriotic duty, I shall state the facts.

"In a canvass over the telephone and through a committee of 120 members of the Jackson County Medical Society, I am told that one man subscribed $25,000, two $20,000, three $10,000, five $5,000, twelve $1,000, twenty more than $500, and the aggregate totals $200,000 of the second Liberty Loan.

"In addition to the actual investment in bonds, the call to the colors will take all the younger doctors and half the older men. One office alone gave nine of its eleven men. One of these men, Dr. C. A. McGuire, was wounded in France at the time Will Fitzsimons fell. It sounds pathetic to call such a body a set of 'bad actors'."

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The Red Cross Emblem.

Having been appointed chairman of the Investigation Committee of the Kansas City Chapter American Red Cross, I take the liberty of asking for a small space in your Journal to explain to some innocent offenders their misuse of the Red Cross insignia.

January 5, 1905, Congress passed an Act incorporating the American National Red Cross, selecting as their emblem the cross composed of five perfect squares, red in color, and made it a misdemeanor for persons to use this Red Cross in advancing any private or corporate institutions. The emblem belongs to the United States Government and, in my estimation, should be held as sacred as the Stars and Stripes, especially in war times. Picture in your mind a Red Cross ambulance on the firing line, its neutral crew treating friend and foe alike, relieving pain and suffering, and think of the lives saved by administering first aid to the injured and wounded; let us all learn to respect this emblem and when we see it execute a mental salute and to retain this command and respect the insignia must not become common or be misplaced.

Section 4 of the Act of Congress referred to above says that "it shall be unlawful for any person to represent himself to be a member of, or an agent for the American National Red Cross, or for any person to wear or display the sign of the Red Cross, or any insignia colored in imitation thereof. Nor shall it be lawful for any person to use the sign of the Red Cross as an advertisement."

Let us remove the cross from our automobiles and take no undue advantage or misappropriate its meaning, thereby cooperating with the worthy movement in a measure becoming the medical profession.

ALLAN HUGHES
Physicians' Supply Company.

One of the most attractive clinics during the recent meeting of the Southwest Medical Society was given by the obstetric division of the Kansas City General Hospital, under Dr. George C. Mosher, chief, and Dr. Buford G. Hamilton, junior obstetrician, who are at present on duty. The demonstration included the McDonald and Spigelberg measurements for calculating the length of the foetus in utero; the technique of induction of labor and the conservative treatment of neglected abortion; also ward walks and exhibition of patients waiting the puerperal.

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Young Physicians, Your Opportunity.

Never again in the history of medicine in this country will such an opportunity be afforded you to serve your country as well as the best interest of yourself.

The experience which you will gain by being commissioned in the Medical Reserve Corps and seeing active service will be worth more to you in a professional way than you could acquire in years of practice in civil life.

The pay granted to officers in the Medical Reserve Corps is sufficient not only to cover all needs, but enable you to lay aside a comfortable balance, and while the older men in the profession have come forward, it is to the younger men that the greatest benefits accrue.

The experience will prove broadening both professionally and mentally. With this experience and the thought that you have served your country in time of need, you will return to civil life and receive the further benefits from your patients, friends and acquaintances, always accorded to one who has been so prominently individualized as this opportunity will afford you.

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The Doctor's Contribution.

In this world's war, your service is absolutely essential.

The medical officer bears the same relative position in war as in peace in that he is a conservator of health and life.

Through his skill, thousands of men receiving slight casualties are returned to the fighting force, thus conserving the physical strength of the army.

In Base, Field and Evacuation hospitals, doctors are as essential as in civil institutions, where the sick and injured are cared for.

As regimental surgeons and on transports and in the Sanitary Corps, must the Government have doctors if we are to terminate this war successfully.

Your contribution to your country at this critical time is your service, which you can give for the period of the war as an officer in the Medical Reserve Corps. That your country needs you is best an-
10—Medical Journal Rich
swered in that she is calling you now.

The fighting forces are constantly expanding and such expansion calls for additional doctors and even with the troops now in training and under mobilization (about two million) the Surgeon General has not enough doctors to fill the requirements.

Secure an application blank at once; fill it out and present it to your nearest examining board. Do not live to regret that you did not have a part in your country's great struggle for democracy which means Liberty.

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British Medical Profession Approves Health Insurance.

How does the medical profession in England, after five years' practical experience, regard the Health Insurance Act? "Favorably," finds the British Medical Association after a painstaking inquiry among all local branches and panel committees. And, the Association's Committee remarks, "the degree of unanimity so far disclosed is somewhat remarkable."

The report, which has appeared in the British Medical Journal, points out minor defects in administrative detail that may be easily corrected and suggests that the scheme, which is proving a distinct gain to the medical profession as well as to the public health, be still further expanded.

The most important improvements recommended by the Committee and adopted at the Annual Representative Meeting of the Association relate to provisions not found in the existing British Act but contained in the tentative health insurance bill prepared by the American Association for Labor Legislation in cooperation with the American Medical Association, and now being studied by official commissions in eight states in this country with a view to legislation. These provisions, now found desirable by the British doctors, include the extension, under certain conditions, of the advantage of medical care to dependents of insured persons, and also the extension of the scope of medical benefit to provide all necessary medical care—specialists and nursing services, institutional treatment, maternity attendance, etc.,—instead of only that which can be furnished by the general practitioner.

Perfection of the existing panel plan and of the basis of payment for medical service is recommended, as against any immediate consideration of a new system in the direction of a state medical service, though the Association recognizes the need for an extension of the number of salaried medical officers in the field of preventive medicine.

———R———

War Work of American Medical Women.

From the Report of the Chairman of the Women's Hospital Committee to the Medical Women's National Association.

The Surgeon General of the Army, has expressed his willingness to place in base hospitals, as Contract-Surgeons, women physicians as anaesthetists, radiographers, and laboratory workers at a salary to be arranged by contract, and not to exceed $1,800 per year. The need for laboratory workers is so great that the American Women's Hospitals have opened courses in this branch at the Women's Medical College of Pennsylvania; Women's Hospital, New York; and at the Research Laboratories of the New York City Board of Health. In them courses will be given to college women who have already studied chemistry and biology, in order to fit them, at a nominal expense, to become laboratory technicians, and to assist our physicians.

Any physician connected with laboratories which offer such courses in the different parts of the United States, and women wishing to apply for this training are requested to take up this matter immediately with National Chairman of Laboraty work, Dr. Martha Wollstein, No. 1 West 81st Street, New York City.

The following are the regulations regarding contract practice;

1. Contract-Surgeons do not receive pensions except by special act of Congress.

2. The government pays for transportation, quarters, heat and light, the same as furnished the first lieutenants.

3. There is no additional pay for foreign service; the contract specifies where the service is to be, and the amount to be received for this special service.

4. $1,800 a year is the maximum, the minimum being whatever agreed to for the particular service to be rendered.

5. The amount is regulated by agreement; the surgeon states his price and the Government accepts or rejects; or vice versa.

6. The immediate superiors are commissioned officers of whatever rank in command at the station where the contract surgeon serves, even although they be only first lieutenants.

The Surgeon-General's office expressed an interest in knowing how many women wished to become members of the Army Reserve Corps, and a letter was sent by the General Medical Board Committee of Women Physicians to the presidents of medical women's organizations asking an expression of preference for this service, but comparatively few made their offer of war service absolutely contingent upon their becoming officers in the Army Reserve Corps.

It is the intention of the Medical Women's National Association to continue the work of this War Service Committee until the end of the war if the need for it continues to exist.

John E. Brock, M.D., Arkansas City, Kan., Rush Medical College, 1890; age 56; a fellow of the American Medical Association; a member of the Kansas State Medical Society and the Cowley County, Kansas, Medical Society, died at his home from nephritis, August 19, 1917.

American Women's Hospitals.

The War Service Committee of the Medical Women's National Association has organized the American Women's Hospitals for work at home and abroad. The Surgeon-General of the Army and the General-Director of the Department of Military Relief of the American Red Cross have approved the provision made for service to the army and to the civil population. The work will be officially part of the medical and surgical service of the American Red Cross.

The scope of the plan is a broad one. It includes units for maternity service and village practice in the devastated parts of the Allies' countries and hospitals run by women for service there as well as for the United States army in Europe. In this country acute and convalescent cases will be treated in hospitals equipped for the purpose; soldiers' dependents will be cared for, interned alien enemies will be given medical aid and substitutes will be provided to look after the hospital service and the private practice of physicians who have gone to the front.

The first units hope to go to France and to Serbia in the early fall.

Headquarters have been established at 637 Madison Ave., New York City. Dr. Rosalie Slaughter Morton is chairman of the War Service Committee.

Compulsory Military Training.

The following resolution was adopted unanimously by the Clinical Congress of Surgeons of North America at Chicago, October 25th, 1917.

Whereas: The experiences of the nation convince us of the necessity for Universal Military Training, to furnish qualified men for defense, to strengthen manhood and mental poise, and to make for a more efficient citizenship, and

Whereas: We believe it will democratize youth and furnish discipline, while developing physical force and endurance, and will produce better fathers and workers for the ranks of peace;

Therefore: Be it resolved that the Clinical Congress of Surgeons at its eigth annual session urges upon Congress at its coming session the passage of a measure along the general lines of the Chamberlain Bill for Universal Military Training, and that the cantonments now used by the National Army be utilized, if possible, for such work.

The following resolutions were adopted unanimously at a meeting of committees from all states (except Maine and Delaware), held in the Congress Hotel, Chicago, October 23, 1917.

Whereas, The experience through which the United States is now passing should convince every thoughtful person of the necessity for the universal training of young men, not only for the national defense in case of need, but also to develop the nation's greatest asset—its young manhood—in physical strength, in mental alertness, and in respect for the obligations of citizenship essential in a democracy; Therefore, Be It

Resolved by the State Committees of the Medical Section of the Council of National Defense that they strongly urge the adoption by our government at this time of a comprehensive plan of intensive universal military training of young men for a period of at least six months, upon arriving at the age of nineteen years; and that this body also support the movement to secure the introduction into the public schools of adequate physical training and instruction;

Resolved, That the members of each Committee immediately take active steps to insure public support for the subject of these resolutions through the newspapers, through public meetings and through the appointment of committees in

each county; also that copies of these resolutions be forwarded to the Senators and Members of Congress in their respective states, with a personal request that favorable action be taken at the coming session of Congress upon a measure following the principle of the Chamberlain Bill and to become operative as soon as the army contonments are no longer required for the training of the forces in the present war;

Resolved, That each State Committee from time to time report to the Medical Section of the Council of Nationtl Defense as to action taken and progress secured in their several states.

———R———

Our Honor Roll.

A letter was sent to the secretary of each county society requesting him to furnish a list of the members of his society who have applied for commissions in the Medical Corps or Medical Reserve Corps of the army, with the rank and addresses, if in active service.

We are giving below the information as furnished. We regret its incompleteness and indefiniteness. Many of the secretaries failed to respond. In several instances the secretaries were themselves in the service. In a few such cases the letter was returned to us or referred to the acting secretary. There were a good many, however, who simply did not consider the matter of enough importance to give it attention.

We are anxious to make the roll complete and will ask that any one who may be able to do so will give the Journal such information as they can, in correction of or in addition to that herein published.

The Journal will be sent regularly to all those in the service when we can secure the proper addresses.

Allen County Society—
- Lieut. O. L. Garlinghouse, M.R.C. (Iola).
- Lieut. H. M. Webb, M.R.C. (Humboldt).
- Lieut. J. I. Simpson, M.R.C. (Moran).
- Lieut. J. S. Sutcliff, M.R.C. (Iola).

Atchison County Society—
- Lieut. W. F. Smith (Atchison), M.R.C., Fort Riley.
- Lieut. S. M. Myers (Potter), M.R.C.
- Lieut. T. E. Horner (Atchison), M.R.C.
- W. K. Fast (Atchison), applied.
- C. W. Robinson (Atchison), applied.

Anderson County Society—
- Lieut. T. A. Hood (Garnett), M.R.C., Fort Riley.
- Lieut. A. B. Cullum (Garnett), M.R.C., Fort Riley.
- A. J. Turner (Garnett), applied.
- L. D. Mills (Greeley), applied.
- D. L. Heidrick (Welda), applied.
- C. A. Forscythe (Lone Elm), applied.
- W. J. Hatfield (Colony), applied.
- J. A. Milligan (Garnett), applied.
- D. L. Simmons, applied.

Brown County Society—
- Capt. W. C. Palmer (Hiawatha), M.C. U. S. Inf., Camp Funston.
- Lieut. H. L. Goss (Horton), M.R.C.
- Lieut. J. S. Rushton (Morrill), M.R.C.

Barton County Society—
- (No report.)

Butler County Society—
- (No report.)

Bourbon County Society—
- Lieut. J. E. Lardner (Fort Scott), M.R.C., Camp Funston.
- Lieut. G. S. Lambeth (Bronson), M.R.C., "Somewhere in France."
- Capt. J. F. McGill (Fort Scott), M.R.C., Fort Leavenworth.
- Lieut. J. R. Brinkley (Fulton), M.R.C., relieved.

Crawford County Society—
- (No report.)

Central Kansas Society—
- (No report.)

Cloud County Society—
- Lieut. M. L. Belot (Clyde), M.R.C., Camp Funston.
- Lieut. F. J. Moffatt (Clyde), M. R. C., School of Roentgenology, Kansas City.
- R. J. McLaughlin (Clyde), applied.

Cowley County Society—
- (No report.)

Chautauqua County Society—
- (No report.)

Clay County Society—
- (No report.)

Cherokee County Society—
Lieut. H. H. Brookhart (Columbus), M. R.C.

Coffey County Society—
Lieut. D. W. Manson (Burlington), M. R.C., Fort Riley.
Capt. M. L. Stockton (Gridley), M.R.C., Fort Riley.
Lieut. C. C. Culver (Burlington), M.R.C.
Major H. T. Salisbury (Burlington), M. C.,U.S.N.G., Camp Doniphan.
Lieut. F. C. Boggs (Waverly), M.C.,U.S. N.G., Field Hospital, Camp Doniphan.
Lieut. S. A. McCool (Neosho Falls), M. R.C., Fort Riley.
H. G. Herring (Leroy), applied.

Doniphan County Society—
Lieut. W. A. Gartner (Troy), M.R.C., Fort Riley.
Asst. Surg. H. R. Boone (Highland), U. S.M.F., U.S.S. Brutus.

Dickinson County Society—
Lieut. Chas. A. Dieter (Hope), M.R.C.
Lieut. A. E. Harrison (Herington), M. C.,U.S.N.G.
Lieut. D. O. Jackson (Manchester), M. C.,U.S.N.G., Camp Doniphan.
Lieut. H. W. Wright (Enterprise), M. R.C.
W. S. Moore (Longford), passed for commission.

Decatur-Norton County Society—
Lieut. C. W. Cole (Norton), M.R.C., Camp Beauregard, Alexander, La.
Lieut. F. D. Kennedy (Norton), M.R.C., Ft. Leavenworth.

Douglas County Society—
(No report.)

Elk County Society—
(No report.)

Franklin County Society—
Lieut. Geo. W. Davis (Ottawa), M.R.C., 11th U.S. Cav. Remount Station, Camp Pike, Little Rock, Ark.
Asst. Surg. W. T. Brown (Williamsburg), U.S.N.R.F., 617 Common St., New Orleans, La.
Lieut. C. C. Bennett (Rantoul), M.C., 187th U. S. Inf., Camp Doniphan.
Lieut. Alexander Haggart (Ottawa), M. R.C., Fort Riley.
Lieut. D. H. Smith (Richmond), M.R.C.

Geary County Society—
Capt. W. A. Carr (Junction City), M.R. C., Sanitary Dept., Camp Funston.
Major F. W. O'Donnell (Junction City), M.R.C., Depot Brigade 89th Division N.A., Camp Funston.
Capt. L. S. Steadman (Junction City), M.R.C.

Harvey County Society—
Lieut. R. Hertzler (Newton), M.R.C., 23d U. S. Inf., Postmaster, N. Y.
Lieut. H. H. Hudson (Newton), M.R.C., Camp Doniphan.
Capt. J. R. Scott (Newton), M.R.C., Ft. Riley.
Lieut. H. M. Glover (Newton), M.R.C., 1st Kan. Ambulance Co., 110th Sanitary Train, Camp Doniphan.
Lieut. R. H. Hartman (Newton), M.R. C., 1st Kan. Ambulance Co., 110th Sanitary Train, Camp Doniphan.
Lieut. L. T. Smith (Newton), M.R.C., inactive list.

Harper County Society—
Capt. B. F. Hawl (Anthony), M.R.C.
Lieut. Chas. B. Stephens (Waldron), M. R.C.
Lieut. C. E. Pessler (Anthony), relieved.

Jefferson County Society—
(No report.)

Johnson County Society—
(No report.)

Jackson County Society—
Capt. Chas. M. Sevier (Holton), M.C., U.S.N.G.
Lieut. Joseph Adams (Soldier), M.R.C.
Lieut. T. M. Greenwood (Circleville), M.R.C.
Lieut. W. L. Wilmoth (Dennison), M. R.C.
Lieut. C. J. Bliss (Mayetta), M.R.C.
Lieut. J. E. McManus (Havensville), M.R.C.

Jewell County Society—
(No report.)

Kingman County Society—
(No report.)

Leavenworth County Society—
Capt. C. J. McGee (Leavenworth), Co. 11, M.O.T.C., Fort Riley.

Capt. J. H. Langworthy (Leavenworth), M.R.C., Fort Leavenworth.
Lieut. C. E. Brown (Leavenworth), M. R.C., Fort Leavenworth.
Lieut. F. B. Taylor (Leavenworth), M. R.C., Fort Leavenworth.
Lieut. P. B. Matz (Leavenworth), M.R. C., Fort Sam Houston, Texas.
Lieut. A. T. Adams (Easton), M.R.C.

Lincoln County Society—
(No report.)

Labette County Society—
Lieut. R. M. Bennett (Mound Valley), M.R.C.
Lieut. A. R. Nash (Parsons), M.R.C., Camp Funston.
Lieut. P. Christman (Parsons), M.R.C., Camp Funston.
Lieut. J. C. Cornell (Parsons), M. C., U.S.N.G., Field Hospital No. 2, Fort Sill, Okla.
Lieut. E. A. Lodge (Parsons), M. C., U.S.A.

Lyon County Society—
(No report.)

Linn County Society—
(No report.)

Marshall County Society—
Lieut. E. L. Wilson (Marysville), M.R.C.
Capt. G. I. Thatcher (Blue Rapids), M. R.C.

McPherson County Society—
Lieut. A. Engberg (McPherson), M.R.C., New Mexico.
Lieut. S. N. Mallisson (Canton), M.R.C.

Miami County Society—
Lieut. F. L. McDaniel (Osawatomie), U.S.N.M.F.,U.S.S. Balsh.
Lieut. B. F. Fraser (Osawatomie), U.S. M.C., Army Medical School.

Marion County Society—
Lieut. J. F. Coffman (Marion), M.C.U.S. N.G., Camp Doniphan.
Capt. E. B. Johnson (Peabody), M.R.C., Ft. Ben Harrison.
Lieut. H. Brunig (Hillsboro), M.R.C., Camp Funston.
Lieut. L. S. Wagar (Florence), M.R.C., Camp Funston.
Lieut. Clyde Appleby (Peabody), M.R.C., relieved.

Mitchell County Society—
Lieut. K. P. Mason (Cawker City), M.R. C., Co. 13, Camp Funston.

Montgomery County Society—
Lieut. S. A. Alford (Independence), M. C.,U.S.N.G., Fort Riley.
Lieut. W. G. Norman (Cherryvale), M. R.C., Fort Riley.
Lieut. I. B. Chadwick (Tyro), M.R.C., Fort Riley.
Lieut. Thos. Matlock (Coffeyville), M.R. C., Chicago, Ill.

Morris County Society—
(No report.)

Nemaha County Society—
(No report.)

Neosho County Society—
(No report.)

Osage County Society—
(No report.)

Osborne County Society—
Lieut. E. A. Drake (Natoma), M.R.C.

Pawnee County Society—
(No report.)

Pratt County Society—
Lieut. J. R. Campbell (Coats), M.R.C.
Lieut. H. Atkins (Pratt), M.R.C., Fort Riley.
C. E. Martin (Cullison), applied.

Republic County Society—
Lieut. C. V. Haggman (Scandia), M.R. C., Fort Riley.
J. W. West (Narka), applied.

Rice County Society—
(No report.)

Reno County Society—
(No report.)

Riley County Society—
Lieut. R. R. Cave (Manhattan), M.C. U.S., "Somewhere in France."

Stafford County Society—
Lieut. C. S. Adams (St. John), M.R.C., Camp Funston.
Lieut. J. C. Butler (Stafford), M.R.C., Camp Funston.
Lieut. O. Liston (Hudson), M.R.C., Camp Funston.
Lieut. J. A. H. Webb (Stafford), M.R. C., Camp Funston.

Sedgwick County Society—
Lieut. W. I. Mitchell (Wichita), M.R.C.,

Fort Riley.
Lieut. G. K. Purvis (Wichita), M.R.C., Fort Riley.
Lieut. W. A. Phares (Wichita), M.R.C., Fort Riley.
Lieut. W. R. Greening (Wichita), M.R. C., Fort Riley.
Lieut. L. M. Metassarin (Wichita), M. R.C., Fort Riley.
Lieut. R. W. Hissem (Wichita), M.R.C., Fort Riley.
Lieut. W. T. Doherty (Wichita), M.R.C., Fort Riley.
Lieut. R. O. Logsdon (Wichita), M.R.C., Ft. Oglethorpe.
Lieut. R. A. Dart (Wichita), M. C., U. S. A.

Sumner County Society—
(No report.)

Smith County Society—
Lieut. V. E. Watts (Smith Center), M. R.C. (commission received).

Southwest Kansas Society—
Lieut. R. T. Nichols (Liberal), M.R.C., Fort Riley.
Lieut. A. L. Knisely (Liberal), M.R.C., Camp Bowie, Fort Worth, Texas.
Lieut. B. H. Day (Hugoton), M.R.C., Fort Riley.
Lieut. Jas. Donnell (Kinsley), M.R.C., relieved.

Saline County Society—
Major J. D. Riddell (Salina), M.R.C., Fort Riley.
Lieut. C. M. Fitzpatrick (Salina), M.R. C., Dept. of Roentgenology, Fort Des Moines, Iowa.
Lieut. J. W. Neptune (Salina), M.R.C.
Capt. A. L. Cludas (Minneapolis), M.R. C., Fort Riley.

Others from Eighth District—
Lieut. F. E. Harvey (Minneapolis), M. R. C., Fort Riley.
Lieut. G. M. Anderson (Lincoln), M. R. C., Fort Riley.
Lieut. Malcolm Newlon (Lincoln), M. R. C., Fort Riley.
F. S. Hawks (Russell).
J. M. Downs (Ellsworth).

Shawnee County Society—
Major S. A. Hammel (Topeka), M. C., U.S.N.G., Field Hosp., Fort Sill.
Capt. C. H. Lerrigo (Topeka), M.R.C., Ambulance Co., Camp Pike.
Capt. S. A. Millard (Topeka), M.R.C., Camp Mills.
Lieut. C. C. Lull (Topeka), M.C., 130th F.A.,U.S.N.G., Camp Doniphan.
Lieut. M. K. Lindsay (Topeka), M. C., U.S.A., Camp Funston.
Lieut. H. K. Rogers (Topeka), M. C., Field Hosp., U.S.N.G., Fort Sill.
Lieut. J. A. Crabb (Topeka), M.R.C., Ambulance Co. 44, Camp Pike.
Lieut. A. M. Dawson (Topeka), M.R.C., Ambulance Co. 44, Camp Pike.
Lieut. J. D. Cook (Topeka), M.R.C., in training at St. Louis.
Lieut. F. J. Ernst (Topeka), M.R.C., Fort Riley.
Lieut. C. M. Hensley (Topeka), M.R.C., Fort Riley.
Lieut. A. K. Owen (Topeka), M.R.C., in training at Kansas City.
Lieut. J. G. Stewart (Topeka), M.R.C., Fort Riley.
Lieut. E. G. Brown (Topeka), M.R.C., 1st Colorado Inf., Camp Kearny, Cal.
Lieut. L. C. Bishop (Topeka), M.R.C., special duty as alienist.
Lieut. G. E. Hesner (Topeka), M.R.C., special duty as alienist.
Lieut. F. L. Loveland (Topeka), M.R.C., special duty, Hattiesburg, Miss.
Lieut. L. M. Tomlinson (Harveyville), M.R.C., Fort Riley.
Lieut. A. L. Weisgerber (Perry), M.R. C., Fort Riley.
Lieut. G. V. Allen (Topeka), M.R.C., inactive list.
Lieut. W. K. Hobart (Topeka), M.R.C., inactive list.
Lieut. O. L. Erickson (Topeka), M.R.C., inactive list.

Tri-County Society—
Lieut. C. M. Miller (Oakley), M.R.C.
Lieut. G. Winslow (Grainfield), M.R.C.
Lieut. W. J. Lowis (Colby), M.R.C.

Washington County Society—
Major H. D. Smith (Washington), M.C., U.S.N.G., Fort Sill.
Lieut. G. A. Tooley (Washington), M.R.

C., Scofield Barracks, Hawaii.
Lieut. H. B. Hawthorne (Palmer), M.R. C., Fort Riley.
Lieut. M. H. Horn (Morrowville), M. R. C.

SOCIETY NOTES.

SHAWNEE COUNTY SOCIETY.

The Shawnee County Medical Society held its regular monthly meeting at the State Hospital, Monday evening, November 5.

Dr. Deland, of the hospital staff, gave a very interesting paper on "The Recent Theories of Insanity and Neuroses." Quite a large number of clinical cases were shown in which the various manifestations of different forms of insanity were pointed out.

TRI-COUNTY SOCIETY.

The Tri-County Medical Society met at Oakley, Kansas, October 11, 1917, at the Kaufman House. The following program was given:

"Spondalotherapy," Dr. C. W. Winslow, Oakley.

"Acute Inflammations of the Middle Ear," Dr. J. S. Vermillion, Hays City.

"Case Reports with Presentation of Clinics," Dr. C. M. Miller, Oakley.

Dr. A. B. Jones, one of the pioneer physicians of Western Kansas, who has been practicing at Wakeeney for the past thirty years, has been taken to Kansas City to a hospital for treatment, and is reported as seriously sick.

Dr. A. C. Wilmott, of Moreland, has temporarily quit practicing for one year and will travel to regain his health, after being disabled for the past few months.

DR. D. R. STONER, Secretary.

MARION COUNTY SOCIETY.

The Marion County Medical Society met at Marion on October 10 at 4 p.m. The dentists of the county had been invited and many of them were present. Dr. J. N. Scott was also in attendance.

A lecture on "Skin Cancers, Their Diagnosis and Treatment," illustrated with lantern slides, was given by Dr. R. L. Sutton, of Kansas City. The lecture was discussed by Dr. Scott. A supper at the Elgen Hotel was given by the Marion physicians.

At the evening session a lecture on "Dental Sepsis and Its Relation to Systemic Diseases," illustrated with lantern slides, was given by Dr. W. W. Duke, of Kansas 17—Medical Journal Jimmie City, Mo. The lecture was discussed by both dentists and doctors.

A vote of thanks was extended to the visiting doctors. The lectures given by Drs. Sutton and Duke were certainly the best the Society has ever had.

B. T. PRATHER, Secretary.

JEWELL COUNTY SOCIETY.

The regular annual October meeting of the Jewell County Medical Society was held in the Y. M. C. A. rooms at Mankato, October 12.

At the election of officers Dr. E. R. Nutter, Burr Oak, was elected president, and Dr. E. L. Reynolds of Mankato was elected as secretary and treasurer.

Dr. John Sundwall, Kansas University, delivered his lecture on "Ductless Glands," illustrated with lantern slides. His lecture was instructive and entertaining and was very much appreciated by the Society, which extended a hearty vote of thanks and appreciation to Dr. Sundwall for his visit.

After the business session closed the Society adjourned to a supper prepared by the Mankato physicians.

E. L. REYNOLDS, Secretary.

BOOKS.

"Nostrums for Kidney Diseases and Diabetes."

Prepared and issued by The Propaganda Department of The Journal of the American Medical Association. Forty-seven pages; deals with thirty-four nostrums; illustrated. American Medical Association, 535 North Dearborn Street, Chicago. Paper, 10 cents postpaid.

This is the latest pamphlet issued by the Propaganda Department of The Journal of the American Medical Association as part of its work in giving the medical profes-

sion and the public the facts regarding different phases of the nostrum evil and quackery. Nostrums for kidney disease and diabetes are grouped together in one pamphlet not because there is any essential relation between diabetes and kidney disease, but because the average quack makes no distinction between the two conditions and recommends his nostrum indiscriminately for both. It is not necessary to tell physicians that drugs will not cure either kidney disease or diabetes but it is necessary to apprise the public of this fact. Whatever justification there may be for the sale of home remedies for self-treatment, there is no excuse, either moral or economic, for selling preparations recommended for the self-treatment of such serious conditions as diabetes and kidney disease. Every "patent medicine" sold for the cure of these diseases is potentially dangerous and inherently vicious. The pamphlet is an interesting and instructive one to put in the hands of the layman.

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Nurses Raise Their Rates.

At the meeting of the Kansas State Association of Nurses which was held at Pittsburg last month, it was decided that on account of the H. C. L. and other things the rates charged by nurses were entirely inadequate. The following schedule of rates was therefore prepared and approved by the association. This schedule is supposed to be put into effect at once and copies of the same have been mailed to all the registered nurses in the state:

General cases, one week or more, per day	$ 4.00
Less than one week, per day	5.00
Two cases in one home—	
First case, per week	28.00
Each additional case, per week	12.50
Maximum charges, irrespective of number of cases in one home, per week	50.00
Delivery only	5.00
Obstetrical cases, per week	30.00
Contagious, per week	35.00
Each additional case, per week	15.00
Small Pox, per week	50.00
Alcoholics, drug fiends, neurasthenics and insane, per day	5.00
Operations only	5.00
Clergymen, physicians and nurses, per week	20.00
Cleansing, medicinal or ice baths, each	1.00
Relief work, each twelve hours	4.00
Hourly nursing, first hour	1.00
Each additional hour	.50

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MISCELLANEOUS

New and Nonofficial Remedies.

Halazone-Abbott. Parasulphonedichloramidobenzoic acid. It is said to act like chlorine and to have the advantage of being stable in solid form. In the presence of alkali carbonate, borate and phosphate it is reported that halazone in the proportion of from 1:200,000 to 1:500,000 sterilizes polluted water. Halazone is used for the sterilization of water in the form of Halazone tablets, each containing 0.004 Gm. halazone mixed with sodium carbonate and sodium chloride. The Abbott Laboratories, Chicago (Jour. A. M. A., Oct. 6, p. 1166.)

Camiofen Ointment. An ointment obtained by mixing iocamfen (a liquid obtained by the interaction of iodin 10, phenol 20 and camphor 70 parts) with an equal weight of a lard-wax-oil of theobroma base, but containing nearly all of its iodin in the combined form. It has the properties of fatty iodin compounds, phenol and camphor, and is used in skin diseases. Schering and Glatz, New York (Jour. A. M. A., Oct 20, 1917, p. 1343.)

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Propaganda for Reform.

Some Misbranded Nostrums—The following nostrums have been subject of prosecution by the federal government under the Food and Drugs Act: DeWitt's Eclectic Cure, containing alcohol, opium and ether. DeWitt's Liver, Blood and Kidney Cure, essentially a water-alcohol solution bearing a cathartic drug, together with Epsom salt, nitrates and iodide. Lightning Hot Drops, containing 60 per cent alcohol and

48 drops of chloroform to the ounce, as well as ether and capsicum. Mother's Salve Mother's Remedy, a salve consisting of petrolatum, with some glycerin, potassium chlorate and oils of cloves, cinnamon, eucalyptus, sassafras and pine or juniper. Raney's Blood Remedy, a solution of potassium iodid and mercuric chloride in syrup of sarsaparilla with 16 per cent alcohol. Rattlesnake Oil Liniment, White Eagle Indian Rattlesnake Oil Liniment, containing little or no "rattlesnake oil". Rosadalis, essentially a water-alcohol solution containing potassium iodid and a cathartic drug (Jour. A. M. A., Oct. 6, 1917, p. 1192.)

Ziratol. The Council on Pharmacy and Chemistry reports Ziratol, sold by the Bristol-Myers Company, New York, ineligible to New and Nonofficial Remedies (1) because its composition is secret; (2) because the phenol coefficient is not stated on the label; (3) because its use by the public as a "vaginal douche" is advised, and (4) because the claim that Ziratol is the "Universal disinfectant" is unwarranted. The A. M. A. Chemical Laboratory reported that the preparation is a soap solution containing alpha-naphthol as its essential constituent. (Jour. A. M. A., Oct. 6, 1917, p. 1191.)

Gonosan. The Council on Pharmacy and Chemistry reports that Gonosan, sold by Riedel and Co., Inc., is in the form of capsules said to contain oil of sandalwood and kava resin advertised for the treatment of gonorrhea (as indicated by the name.) It declared Gonosan inadmissible to New and Non-official Remedies because the therapeutic claims are exaggerated; because there is no evidence that the combination of kava resin with oil of santal is superior to oil of santal alone, and because the therapeutically suggestive name is conducive to indiscriminate and unwarranted use of the combination both by the profession and by the public (Jour. A. M. A., Oct 13, 1917, p. 1287.)

Alcresta Ipecac. This preparation of ipecac was admitted to New and Nonofficial Remedies in 1915. Recently claims have been advanced for this preparation which were not contemplated at the time of its acceptance and which appeared improbable and unwarranted in the light of the known properties of ipecac. The Council on Pharmacy and Chemistry brought these extravagant claims to the attention of Eli Lilly and Co., the proprietors of Alcresta Ipecac. As Lilly and Co. would neither discontinue nor modify these claims and did not submit any evidence to warrant them, the Council announces that it has been obliged to delete this proprietary from New and Nonofficial Remedies (Jour. A. M. A., Oct. 20, 1917, p. 1373.)

Hepatico Tablets. The Council on Pharmacy and Chemistry reports that Hepatico Tablets (David Laboratories, Inc.) are claimed to "contain a combination of bile salts, pepsin, pancreatin, ext. nux vomica and cascara", and that in their exploitation the same therapeutic nonsense is made use of as that used in connection with two preparations of similar claimed composition, namely, Veracolate and Taurocol, previously reported on by the Council. The Council declares the therapeutic claims made for Hepatico Tablets unwarranted, the name objectionable and the combination of ingredients irrational (Jour. A. M. A., Oct, 20, 1917, p. 1374.)

Some Misbranded Nostrums. The following "patent medicines" have been declared misbranded under the U. S. Food and Drugs Act: Sherman's Compound Prickly Ash Bitters, containing 20 per cent alcohol, buchu and an emodin bearing drug. "Thorn's Compound Extract of Copaiba and Sarsaparilla", a mixture of copaiba and sarsaparilla extract. Tarrant's Compound Extract of Cubeba and Copaiba", a mixture of copaiba and cubeb extract. V. I. G., an aqueous solution of glycerin, morphin, berberin, hydrastin and salicylic acid (Jour. A. M. A., Oct 20, 1917, p. 1374.)

The Active Principle of the Hypophysis. Despite the suggestion obtained from certain advertising claims, the active principle of the pituitary gland has not been isolated in a pure state. An examination

of commercial preparations showed that proteoses and possibly peptones were present in all (Jour. A. M. A., Oct. 27, 1917, p. 1431.)

Haines' Golden Treatment. This is sold by the Golden Specific Co., Cincinnati, O., as a cure for the liquor habit which may be administrated without the knowlege of the patient. The directions which accompany the three dollar package imply, however, doubt as to the probability of success unless the patient is anxious to be cured of the habit and takes the powders knowingly. The A. M. A. Chemical Laboratory reports that this worthless nostrum consists of powders which are composed essentially of milk sugar, starch, capsicum and a minute amount of ipecac. (Jour. A. M. A., Oct. 27, 1917, p. 1460.)

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Chloretone as a Hypnotic and Sedative.

Administered internally, Chloretone passes unchanged into the circulation and is deposited in considerable quantities in the cerebral tissue, the patient falling into a profound sleep. Its action is like that of natural fatigue. Hypnosis passes off gradually, and no habit is formed. Acting upon the central nervous system, therapeutic doses have little or no effect upon the heart and respiratory centers.

Chloretone possesses a wide range of therapeutic applicability. It is a valuable sedative in alcoholism, cholera and colic. It is useful in epilepsy, chorea, pertussis, tetanus and other spasmodic affections. It allays, in most cases, the vomiting of pregnancy, gastric ulcer and seasickness. As a sedative and hypnotic it is indicated in acute mania, puerperal mania, periodic mania, senile dementia, agitated melancholia, motor excitement of general paresis, insomnia of pain (as in tabes dorsalis, cancer and trigeminal neuralgia), insomnia of mental strain, insomnia of nervous diseases, etc. In insomnia it is often effective when other drugs have failed.

The therapeutic dose for an adult is ten to fifteen grains. Good results, however, have been had with doses as small as seven and one-half grains. Sleep usually follows in half an hour to one hour. The administration of Chloretone is not attended with digestive disturbances.

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The Nephelometer Test.

Recent advances in medical science have found a new significance in the diastase enzyme and fat contents of the blood. The enzyme has the power to convert starch into dextrose and this ability becomes greater in diabetes, nephritis, and some other diseases. Thus the quantity of diastase enzyme in the blood is in direct proportion to the severity of the disease and this factor has been held to be a better control than the estimation of blood sugar. In diabetes, nephritis and various forms of anemia, the amount of fat in the blood increases with the gravity of the ailment. With the aid of the nephelometer it is now possible to measure accurately small quantities of fat in the blood and this test is now of direct value in diagnosis. The nephelometer, which was formerly used mostly in research work, therefore has now a practical value in the medical laboratory. Its use has also made possible marked advances in our knowledge of fat metabolism. Both these tests have lately been installed in the Battle Creek Sanitarium and have been found of especial value in cases of diabetes.

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The Restoration to Favor of Creosote.

Creosote has been employed by physicians with varying success for many years in the treatment of bronchitis, especially the bronchitis of pulmonary tuberculosis. Unfortunately, because of its disagreeable odor and taste, because it caused gastric irritation and distress, nausea and even vomiting, most clinicians were forced to abandon its use. For these reasons creosote is now rarely prescribed. It has fallen into disuse, even though it is admitted that it is possessed of therapeutic value.

Calcreose (a chemical combination of calcium and creosote, containing 50 per cent creosote) very largely overcomes the objections to creosote. Like creosote, Cal-

creose will allay cough, lessen expectoration and lower the temperature.

It also improves digestion and nutrition through intestinal antisepsis and stimulation.

Calcreose is not a germicide, but it checks bacterial activity, checks putrefaction, lessens the production of toxines—hence reduces the toxemia always associated with intestinal infections. Calcrease is possessed of all these good qualities but, unlike creosote, Calcreose is practically devoid of all objectionable features. In other words, Calcreose is an agreeable form of creosote medication, and when given in small doses at first, gradually raised to tolerance, it is free from any untoward effects. As high as 120 grains of Calcreose has been given daily without digestive disturbance.

Unlike many creosote compounds, Calcreose is comparatively inexpensive. A thousand four-grain tablets costs the physician or druggist only $3.00. Calcreose is made by the Maltbie Chemical Company, Newark, New Jersey, and is advertised in this issue of the Journal.

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Gout and Infectious Arthritis.

HENRY A. CHRISTIAN, M.D.

In two clinical lectures, in the International Clinics for June, Christian considers the differential points between gout and acute and chronic arthritis.

There are three types of gout:

First, obvious depositions of urates in the bone or in the cartilage, or in both.

Second, in which that does not occur, but in which there are chronic arthritic changes, with exostoses and associated atrophy of the cartilage, etc., sometimes with depositions of urates in the soft parts around the bone, adjacent to the bone, but not in the bone.

Third, very little change in the joints, inflammatory change in the soft parts, but no obvious deposition of urates in the soft parts about the joints or in the bones or cartilages. In all three types depositions of urates in the ears occur giving typical tophi that are easily recognized.

In regard to the value of uric acid metabolism studies, Christian points out that we are dealing with a substance which is present in the blood and in the urine in relatively very small quantities. Anything present in small quantities brings up the possibility of error in its determination. In the second place, we are dealing with a substance which in the blood is very difficult of quantitive demonstration, and there is still a question as to whether the methods available are satisfactory; or, to put it another way, other substances than uric acid may cause the same calorimetric changes which are used by Folin in his method of determining the uric acid.

In regard to the X-rays he states that we are justified in calling gout only those cases in which there is the typical punched-out area in the bones with thickening in the bony substance around the area.

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Leukocyte Counts.

H. L. Kretschmer, Chicago (Jour. A. M. A., Nov 3, 1917), emphasizes the value of making leukocyte counts on the urine. This he thinks is the only way one can obtain definite and exact information as to the severity of the infection. Moreover, it gives an idea as to the rate of the patient's improvement under treatment. The writer knows of no laboratory or clinic following this course and says it is hard to see how they can get along without it. The method is particularly valuable for informing us of the progress of the patients treated by plevic lavage in cases of infection of the renal pelvis. It may be criticised as being inaccurate and having possibilities of error, but its technic is as accurate as other methods and better than none at all. It would naturally vary with the urinary output and in order to make the counts as nearly as possible under the same conditions, patients are instructed to drink six ounces of water two hours before and six ounces more one hour before the urine is to be examined. In the making of the counts the urine is not centrifuged. The specimen is vigorously shaken to have it thoroughly mixed

with the leukocytes. Toison's solution is drawn to the 0.5 mark and urine is drawn to 11. The mixture is agitated and a drop of fluid placed on a blood-counting chamber, covered with a cover glass, and the count is made in the usual way. The writer reports a number of cases and tabulates the results. The method does not cause any trouble or inconvenience to the patient while it is being carried out. No conclusions can be drawn from a single count. The value of the method depends on making each count under identical conditions. The method itself should be considered from a standpoint of comparison. Its distinct value lies in showing the improvement made from time to time while the patient is under treatment.

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Cystitis.

M. W. Lyon, Jr., Washington, D. C. (Jour. A. M. A., Oct 20, 1917), reports a case of interest because it indicates the hemolytic properties of a colon bacillus, little mention of which occurs in medical literature. From a patient, an adult women, who had an obscure bladder or kidney trouble, samples of catheterized urine were collected and tested by innoculation and culture observations on animals. The reactions of the isolated bacillus are given, one important point of interest being that it could not grow on agar like the ordinary colon bacillus, which is usually easy of cultivation. The writer quotes Schmidt as saying that the *Bacillus-coli-hemolyticus* cannot be considered a well established variety and that, in his opinion, the hemolytic powers are accidental and not any special indication of pathogenicity. The inability to grow on agar, however, seems to show a high degree of specialization and adaptability on the part of the colon bacillus when what is an ordinary intestinal saprophyte can become so restricted in its habits as to need human blood or other complex proteins for its nutrition. Hexamethylenamin had no effect in restraining the organisms. Local and general treatment and the use of an autogenous vaccine caused marked improvement in the patient's condition.

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Military Map Making.

W. W. Reno, U. S. A., Fort Riley, Kan. (Jour. A. M. A., Oct 13, 1917), describes the method of making military maps, a knowledge of which is the best preparation of map reading. He points out that the ability to read maps is an absolutely essential qualification of a medical officer. Instructions conveyed to him in the field often contain references to maps, the misunderstanding of which would greatly impair his efficiency. The question also of shelter, of cover from fire, and of desirable locations for sanitary formations can often be determined by reference to maps. The writer gives fullest directions for the making of impromptu maps. These details should be learned by the officer before he tries to read maps. When the anatomy of the map is mastered, reading is simple. Hill slopes should be thought of in degrees, so that by looking at the map, one can say; That is an 8 degree hill, or a 5 degree hill, or whatever its height may be. Also this knowledge helps one to determine whether the hill offers protection from rifle or artillery fire. Slopes of the fall of bullets or shell should be learned in order to complete this valuable information. The article is illustrated.

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Bakers' Yeast.

P. B. Hawk, F. C. Knowles, Martin E. Rehfuss, Philadelphia, and J. A. Clark, New York (Journal A. M. A., October 13, 1917), have made a study of ninety-one cases in which bakers' yeast was employed therapeutically. Several investigators have declared that bakers' yeast is not a satisfactory therapeutic agent, and the great majority of yeast researches have been made with brewers' yeast or dried yeast preparations. The authors made tests on normal persons to learn the action of yeast on the stomach when given suspended in water, beef tea, or orange juice, with meals or between meals. They also made a com-

parative study of living and dead yeast, which they killed by boiling it in water for a few minutes. They made all stomach examinations by the fractional method. They found that yeast could be satisfactorily given, either with meals or on an empty stomach, and that killed yeast acts much the same as living. If gas formation troubles the patient, killed yeast is preferable, or living yeast between meals. Their experiments also show that yeast is not readily destroyed in the human stomach and, when given between meals, a large part passes into the intestine in the living condition. Hence living yeast has a more pronounced effect in constipation cases. Yeast treatment was found to have its best effects in furnuculosis, acne vulgaris, acne rosacea, and constipation. It was also discovered useful in acute bronchitis, urethritis, conjunctivitis, swollen glands, folliculitis, gastro-intestinal catarrh, intestinal intoxication, arthritis deformans, and duodenal ulcer. Its laxative effect was also noticeable in cases other than those of constipation. In seventeen cases of furunculosis all but one were improved or cured, and in seventeen cases of acne vulgaris and in eight cases of acne rosacea all the patients were also improved or cured. The same is true of nine out of ten cases of constipation. In many of the patients rteated, the general physical condition was also improved independent of the special symptoms of the disease for which it was specially given. Ten tables accompany the paper.

—B—

Guide for Formulating a Milk Ordinance.

To assist communities in making their milk supply safe, the United States Department of Agriculture has issued a "Guide for Formulating a Milk Ordinance." This document, Department Bulletin 585, suggests a form of ordinance designed to protect the community against fraud and disease and to insure cleanliness in the production and handling of milk. Health officers and physicians interested in improving milk supplies may obtain it free on application to the department.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC.

Required by the Act of Congress of August 24, 1912, of the Journal of the Kansas Medical Society Published Monthly at Topeka, Kansas, for October 1, 1917.

State of Kansas, County of Shawnee, ss.

Before me, a notary public in and for the state and county aforesaid, personally appeared W. E. McVey, who, having been duly sworn according to law, deposes and says that he is the editor of the Journal of the Kansas Medical Society and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of Post Office Address

Publisher—W. E. McVey, under direction of the Council of the Kansas Medical Society .....Topeka, Kansas

Editor—W. E. McVey .....Topeka, Kansas

Managing Editor—None.

Business Manager—None.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

Kansas Medical Society, Dr. Chas. S. Huffman, Columbus, Kansas, President; Dr. J. F. Hassig, Kansas City, Kansas, Secretary; Dr. L. H. Munn, Topeka, Kansas, Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only).

W. E. McVey, Editor.

Sworn to and subscribed before me this 22d day of September, 1917.

R. A. Ferlet,
Notary Public.

(Seal)

(My commission expires February 20, 1920.)

Poliomyelitis.

R. A. Hibbs, New York (Journal A. M. A., Sept. 8, 1917), reports eight cases of operation for scoliosis after poliomyelitis long after the acute attack. The operation was in every essential feature precisely the same as that performed on patients with Pott's disease, consisting of dissecting up the periosteum of the spinous process down to the base of the transverse process and in curetting the lateral articulations there, which are always easily reached in children and in most adults. After this is accomplished, a small piece of bone is elevated from the laminae and turned down, its free end resting on the one next below. The spinous processes are then partly divided with forceps for that purpose and broken down, so that the tip of one comes in contact with the base next below it. That is all that has to be done to the bone.

———R———

Wound Diphtheritic Infection.

J. G. Fitzgerald and D. E. Robertson (Journal A. M. A., Sept. 8, 1917), have studied and verified as diphtheritic a series of cases of wounded back from the war. Some of these may have acquired it from others but the remainder were in all probability being returned to Canada from overseas. Since it has been observed that possibly 1 or 2 per cent of healthy persons are diphtheria carriers it is a matter of interest that only two of their diphtheritic subjects were found to be carriers. The treatment in all was practically the same. The men were isolated, given diphtheria antitoxin and strict asepsis observed in the dressings. The average stay in isolation was thirty days. It has been recommended that in future a routine bacteriologic examination of all suppurating wounds be made and that in no case should dressings of infected wounds be made without wearing rubber gloves.

WANTED—FOR SALE—ETC.

WANTED—A single man, graduate of a first class school, as assistant physician at the State Hospital for Epileptics, Parsons, Kansas. Salary, $1,150.00 per year with maintenance. Address M. L. Perry, Supt. State Hospital, Parsons, Kansas.

FOR DIAGNOSTIC AID

Smears
Sputum
Urine
Blood
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Excision of Hemorrhoids Under Local Anesthesia.

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Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

For some reason or reasons which I do not completely comprehend, an individual suffering from hemorrhoids will suffer longer and more intensely and do less to obtain relief than will a person afflicted with any other disorder. This may be due, in a measure, to the fact that death from protruding, painful or inflamed hemorrhoids does not directly occur. It may be due, in a greater measure, to the fact that the regular profession of medicine offers as a means of relief, the administration of ether, an operation of some degree of severity and a somewhat stormy period of recovery, the discomfort of which is materially increased and prolonged by the after effects of the ether. On the other hand, the public has been educated by the charlatan to the belief that hemorrhoids may be removed "without the knife," "without pain" and "without detention from business." With this alluring prospect before him it is small wonder that the man with piles slips quietly away from his family physician and goes to the all-wise "specialist" whose pictures and praises are scattered broadcast by every mail. In no other field of medicine, excepting the treatment of cancer, does the quack prey upon the credulty of the public and gain its confidence to the same extent as he does in the treatment of diseases of the rectum.

Two or three years ago I became interested in the fact that my hemorrhoid cases were seeking easier and better methods than my own, and I began to prepare to meet the conditions by taking away from the usual operation some of its terrors without detracting in any way from its beneficial results. Concerning the technic of the standard methods of removing hemorrhoids as practiced by our leaders in this department of surgery, there can be no question. The general anesthetic is considered very seriously by the average person who must take it and would always be evaded if possible. This is particularly true of the hemorrhoid patient who has heard throughout the whole course of his life that it is unnecessary. Aside from the fancies of the patient it is well known that ether sickness is a most distressing and undesirable condition.

With these facts before me I began to study and to use local anesthesia in my hemorrhoid work.

It is not the purpose of this paper to call attention to any original procedure of my own, for I have none. But it is the purpose of this paper to call attention to the practicability of a plan which I have evolved from various sources.

Thirty-six hours before the operation the patient is given two ounces of castor oil. Twelve hours before the operation the lower bowel is emptied as thoroughly as possible by soapsuds enemas repeated till the water comes away clear. An enema given a short time before the operation may not be completely expelled and in such event makes trouble during the course of the operative work. Twenty-four hours

before the operation the patient goes on a soft diet. This diet is continued for three days after the operation. One hour before the operation, morphine gr. $\frac{1}{4}$ with atropine gr. 1/100 is given by hypodermic. I have used scopolamine gr. 1/150 in addition to the morphine and atropine, but have abandoned it, as it seems to do no material good and on the contrary it often excites a mild delirium with some dizziness.

With the patient in the Simms position the field is sterilized by scrubbing with soap and water and then sponging with 70 per cent alcohol.

Novocain with adrenalin is the only anesthetic I have used. It has been satisfactory and I have had no reason to experiment with any other. Fifty cc. of a $\frac{1}{4}$ of 1 per cent solution is prepared. I use the novocain with adrenalin tablet which is to be found on the market in convenient form for the ready preparation of solutions. It is not necessary to use 50 cc. That quantity is prepared in order to provide for any accidental waste.

While an assistant separates the buttocks, a needle one inch long attached to a syringe holding five cc. of the solution is inserted beneath the epidermis just outside the mucocutaneous junction and behind the anus. By pushing the needle forward or withdrawing it and reinserting a succession of wheals are raised around one side of the anus to its anterior margin. Inserting the needle again at the point of beginning, the process is repeated on the other side of the anus. This anesthetized area completely surrounds the anus. Two syringefuls of solution are used. In some instances, owing to the condition, size or location of the hemorrhoids, the anesthetized area may need to be farther away from the anus. With the gloved index finger of the left hand lubricated and passed into the rectum, a needle two and one-half inches long is inserted into the sphincter in its anterior portion and ten or twelve drops are injected. The needle is then pushed a little deeper and more solution injected. The process is repeated until the needle has been inserted its full length. During the injection the finger in the rectum serves as a guide. It feels the needle and feels the swelling of the tissues following each injection. About four cc. of solution are used. The needle is withdrawn until it escapes from the sphincter and then is passed into the tissues just outside that muscle where the remaining cc. is injected. This plan of injection is repeated on each side and on the posterior portion of the anus. Thirty cc. of solution are used; five cc. on each side of the anus and five cc. in each quadrant of the perianal tissues.

Within two or three minutes after the injections are finished dilatation of the sphincter is begun. I have done this by means of specula, by means of graduated plugs and by manual methods. After some experience with these various methods, I adopted and have since used with satisfaction the following plan: The forefinger of the gloved right hand is passed into the rectum, then the index and second finger together, then the index, second and third fingers, then the three fingers and thumb are introduced. The addition of the thumb makes a cone of about the proper size. With each insertion the digits are spread apart and turned in various directions as seems necessary. This method has the advantage of keeping the operator informed by sense of touch of the condition and resistance of the sphincter. Occasionally the dilatation is completed by the thumbs or forefingers of each hand in the rectum making traction in opposite directions. The dilatation is always thorough. It is necessary, first, in order to secure room in which to work and, second, in order to prevent severe pain after the operation. The dilatation is as complete as any dilatation under ether can be. With a patient under ether and deeply narcotized, there is a disturbance of respiration when the dilatation is made. Rigidity of the muscles of the body sometimes occurs at the time of dilatation. If the patient is anesthetized deeply enough to prevent these respiratory disturbances and these rigid-

ities, when the dilatation is done the anesthesia is entirely too deep. Under the local anesthesia just described, during the dilatation the patient will make no movement. He will carry on a conversation with the operator, the nurse or a bystander, undisturbed.

With the sphincter dilated, gloves are discarded and any one of the standard operations are done. I prefer the ligature operation. The smell of burning hemorrhoids is not altogether pleasant to a nervous patient who knows where the smoke is coming from. Barring the unpleasant mental impression, the clamp and cautery may be done as well as any other operation.

The after treatment of these cases is about the same as that of cases done under general anesthesia. There is no ether sickness to contend with. This materially shortens the period of convalescence and makes the same much more comfortable.

The patient may take his castor oil and go on his soft diet at home. He then enters the hospital twelve hours before the operation. His bowels are moved on the third day. He goes home on the fourth day, having been in the hospital five days and having had his piles removed according to the principles of sound surgery. He is given advice concerning care and precaution which he must observe one or two weeks.

The procedure outlined above is not well adapted to seriously inflamed and greatly swollen hemorrhoids. Tissue that is highly inflamed does not anesthetize very readily.

This plan of handling a hemorrhoid case is simple and efficient. It relieves the patient of most of the dread and most of the discomfort of the usual operation and gives him the same result.

Pink Eye.

O. R. WOLFE, M.D., Beverly, Kan.

Read before the Kansas Medical Society at Salina, Kansas, May 2, 3 and 4, 1917.

Acute catarrhal conjunctivitis, or "pink eye," while one of our most common diseases, and ordinarily considered one of the minor complaints, has like measles and whooping cough become so familiar to us that it seems like the old idiom is true that "Familiarity breeds contempt." But when we contemplate its remote effects we can easily see that it deserves more careful consideration than has usually been accorded it.

The disease is usually self limited, still many cases become chronic, and when they do it is one of the most stubborn of all diseases of the eye to permanently cure, and one that gives much discomfort and loss of time to those who are compelled to use their eyes to a large extent in their business, especially in near work.

It is also the forerunner of many other ocular diseases of a more serious nature, therefore the laity should be more thoroughly educated to its dangers, and we as physicians should consider every case as one that needs our best attentions. We should warn our patients as to its infectious nature, its tendency to become chronic, its possible dangers and stubborn nature when it becomes so.

How many times we see young people wearing glasses or with chronic conjunctivitis or a marginal blepharitis or some other chronic ocular disease, experiencing a great amount of trouble with their eyes, and hear them say, "My eyes never bothered me until I had the 'pink-eye,' or measles," whichever it may be, and right here let me say that the conjunctivitis of measles, and other exanthemata, should not be looked upon merely as a symptom of the disease that will disappear with the eruption, but should be treated as a complication.

Theorizing further, it has occurred to me, after watching a large number of cases of measles begin with a coryza, and conjunctivitis, that instead of there being a poisonous principle circulating in the blood which causes the conjunctivitis and coryza early in the course of the disease, that measles is an infection of mucous membrane.

A local infection of these parts with subsequent systemic manifestations, and

with a macular eruption peculiar to it. This theory looks reasonable inasmuch as the profession has pretty thoroughly accepted the fact that the secretions from the air passages usually are the means of transmitting the infection.

Therefore it seems to me that measles is no more a specific skin disease than Herpes Zoster, which has an eruption peculiar to it and runs a regular course, but is now looked on as an infection somewhere in the nervous system. That the large number of middle ear infections that we see following measles is only the extension of the local infection through the eustachian tube from the mucous membrane of the nose and throat. Studies of infection foci as carried on by such men as Rosenau will do much to clear up the nature of such diseases.

Definition: An acute catarrhal inflammation, especially of the palpebral conjunctiva, characterized by congestion, swelling of the lids, and a mucopurulent discharge.

Etiology: Exposure to wind, dust, and smoke, or the presence of some irritating foreign substance, the Koch Weeks bacillus, the Moran-Axenfeldt diplobacillus, the streptococcus, staphylococcus, and pneumococcus are responsible. It is also found with the eruptive diseases.

The more virulent form caused by the Koch-Weeks bacillus, known as ophthalmia catarrhalis, often occurs as an epidemic, as does the milder forms, both of which are now prevalent in this part of the state, but more especially the mild form. Those cases which are less severe in type, particularly those which are associated with reddening at the angle of the lids, and have a greater tendency to become chronic, are caused by the Morax-Axenfeldt diplobacillus.

I believe the infection is usually transmitted from the discharge of the catarrhal secretion of the air passages, especially the nose, as it is almost always present and the same bacteria can usually be demonstrated as in the conjunctival secretion, showing a close relationship.

Varieties: A number of varieties exist, but clinically they may be classed under two heads: simple, and infectious, the latter being largely due to the Koch-Weeks bacillus, and called acute epidemic conjunctivitis.

Symptoms: In the beginning and in the lighter cases we find the conjunctiva of the lids only affected, it being a vivid red, and relaxed. There is reticulate injection as a rule, and the separate blood vessels can usually be distinguished, but when the injection is especially dense the conjunctiva acquires a uniformly red appearance, but is smooth.

The severe cases are distinguished from the mild ones by the fact that the process invades the bulbar conjunctiva, where it causes a slight degree of swelling.

Small hemorrhages—ecchymosis of the conjunctiva—are frequent in the midst of the reticulate injection.

Occasionally subconjunctival hemorrhages of the bulbar portion, and of considerable size are found, especially in the infections of the Moran-Axenfeldt diplobacillus. Inflammation of the conjunctiva is accompanied by increased conjunctival secretion, which appears as flakes of mucous swimming in the increased lachrymal fluid, the secretion increasing in proportion to the intensity of the inflammation. The most troublesome sensation is that of feeling that there is some foreign body in the eye, due to flakes and filaments of tough mucus in the conjunctival sac. If these flakes lie upon the cornea they produce the disturbances of vision so frequently complained of. They are distinguished from more serious ocular diseases by the fact that, if the mucus is brushed off the lids, vision is restored to normal. Severe pain is not frequent, and when it is present it is usually caused by an ulcer of the cornea, although at times nervous patients complain of severe pain when the bulbar conjunctiva is involved, in the severe cases.

All the cases are worse in evening, especially where exposed to rays from alternating current electric light, or moving

pictures. At times the lids become very stiff, photophobia is present, epiphora, burning and itching become very troublesome.

The mucopurulent discharge collects at the roots of the lashes and the lids are stuck together in the mornings.

Diagnosis: In epidemics in a community it may be expected, but the presense of a mucopurulent discharge, deep congestion involving the conjunctiva (especially palpebral), clear vision when the flakes of mucus are brushed away, and the absence of pain, are characteristic.

Glaucoma and iritis must be especially differentiated from it. Glaucoma has a watery secretion if any, scleral congestion, cornea looks cloudy or steamy, a dilated pupil, and increased interocular tension with some continuous pain, and poor vision. The "rainbow" colors seen about a candle flame from filaments of mucus lying upon the cornea in conjunctivitis are not changed by brushing or washing the eye and must not be confused with the "halo" of glaucoma.

Iritis: Has no secretion, circumcorneal congestion, especially cloudy cornea, iris discolored, a contracted pupil with synechia, and pain more severe at night, with vision somewhat reduced.

The history of the case will help out materially, for in conjunctivitis one eye is usually attacked a few days in advance of the other.

Course: Uncomplicated, the inflammation usually subsides in eight to fourteen days, but quite frequently there remains a chronic conjunctival catarrh, or a marginal blepharitis. These are two of the most stubborn and troublesome diseases to treat successfully, and require the utmost diligence and patience of both physician and patient to get permanent results. If the disease is properly treated in the acute stage it is usually easily cured, but not so when chronic. Lack of persistence or faulty treatment of the acute stage is usually the cause of the complications.

Among the laity all kinds of household remedies are used, such as poultices of raw meat, bread and milk, flaxseed, onions, or bathing eyes in urine, all of which should be condemned in the most emphatic terms.

Prophylaxis should be exercised as in any other contagion. Separate towels and linen should be used, and coughing and sneezing should be avoided as much as possible. Quarantine regulations should be enforced, although it rarely is done.

Treatment: In the mild cases, or in the first stage of any of the cases, or where it is impossible for the patient to visit the physician, nothing excels cold applications, along with the instillation of a ½ per cent solution of zinc sulphate. This should be used two or three times a day.

The patient should be instructed to lie down, or sit with the head well thrown back, and hold the lids open with the fingers at least one minute after the instillation of the solution. This enables the remedy to come in good contact with the conjunctiva, especially the lower lid, which is usually more affected, and by so doing the medicine is not immediately washed away by the drainage process of the eye.

In infections of the Moran-Axenfeldt diplobacillus this ½ per cent solution of zinc sulphate is absolutely specific, and if persistently used will effect a cure.

We should caution our patients to avoid dust, tobacco and all smoke, straining, or over-use of the eyes, especially by artificial light.

Blue glasses should not be used unless it is necessary for the patient to be exposed to strong artificial light. The eyes should not be bandaged, as ordinary sunlight, if not too bright, is beneficial.

In the second stage of the disease where the discharge appears, astringents are indicated, but these should not be instilled at night. One-fourth to ½ grain of alum added to the ounce of zinc solution is very good, but silver nitrate is best. Some of the organic silver preparations may be used in place of it, as silvol 10 to 40 per cent, argyrol 10 to 30 per cent, protargol 10 per cent, or others. These contain a smaller percentage of metallic silver and

attack the tissues less, and are much less irritant. They also have the advantage that they can be entrusted to the patient to instill himself.

In the more severe cases 2 per cent silver nitrate solution is the remedy "par excellence." In applying it we evert the lids so that the conjunctiva looks forward, then brush them lightly with the solution, taking care to prevent it coming in contact with the cornea.

We wash out the excess with warm water, or a weak salt solution. A delicate bluish-white pellicle will then be seen to cover the conjunctiva, which is the superficial slough which the solution has produced. Marked irritation and burning follows, lasting from fifteen to twenty-five minutes, after which improvement sets in. An examination of the conjunctiva at this time shows that the thin slough is separating, and is being thrown off in the form of shreds, after which the conjunctiva looks more pale and the patient feels relieved. This improvement lasts from one-half to one day, then the trouble gradually begins to increase again, which is an indication for another treatment of silver. Care should be taken to make the application lightly, so as to avoid a deep slough and the intense pain that follows it. Morning is the best time to make the application. Remember never to repeat an application as long as the slough from the previous treatment is still adherent.

The fifteen to twenty-five minutes following the treatment is a most trying time to the patient and care must be taken to impress upon him the beneficial reaction that follows, or else he may feel that the treatment is worse than the disease.

Some men follow the silver with a weak adrenalin or cocaine solution, which relieves the pain but seems to interfere with the beneficial results of the silver nitrate.

In old stubborn chronic cases in which there is not much inflammation but considerable hypertrophy, some men use applications of stick copper sulphate to the conjunctiva with good results.

It is well for the physician to remember that in treating any case that has a tendency to become chronic, no remedy should be applied too long, as the conjunctiva becomes accustomed to it and there is no reaction and subsequent benefit.

When the sticking together of the lids annoys, ointment of boric acid or sterile vaseline applied to the margin of the lids at night serves well.

In many young people errors of refraction show up which have never given any trouble previously, and where hyperopia or astigmatism exists the catarrh has a greater tendency to become chronic, unless the error is corrected.

Also many cases develop a nasal catarrh along with a conjunctivitis, or where a catarrhal conjunctivitis develops with a patient who has nasal catarrh there is a much greater chance of the conjunctival catarrh becoming chronic. If so, a permanent cure must embrace curative measures for the nasal catarrh, such as correcting a deflected septum, or draining infected sinuses, etc. In other words, remove the cause of all catarrhs present.

I have used vaccines in a few cases and the results are favorable enough to warrant their further trial.

In unilateral cases the tear ducts must be looked over to see if the drainage apparatus is functionating.

I might also add that in refracting cases with a conjunctivitis of any duration, without a cyclopegic, as is often done, that slight astigmatic errors are apt to be found that are afterward found to be false, and one should verify his findings with the retinoscope and cyclopegia.

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Nitrous Oxide in Obstetrics.

LaVerne B. Spake, M.D., Kansas City, Kansas.

Read before the Wyandotte County Medical Society.

What feasible reason is there that a woman should suffer during labor? Labor is a normal physiological process, and should be as free from pain as other physiological processes. Dr. Oliver Wendell Holmes says, "The best a physician can give is never too good for a patient."

Since the time of Eve, women have suffered the pangs of childbirth, but there are many reasons to believe that the extreme suffering is a penalty of civilization and artificial refinement. While labor of primitive women was usually easily and relatively painless, in the presence of some pathological condition, her agonies often ended in death.

THE DEVELOPMENT OF ANESTHETICS.

Sir Humphrey Davy in 1880 discovered the use of nitrous oxide, in 1868 Edmond Andrews suggested the use of oxygen with nitrous oxide. Ether and chloroform were in turn advocated by Simpson. The late King Edward was born under chloroform anesthesia and it has been very popular since. Klikowilski of Petrograd applied nitrous oxide analgesia in twenty-five obstetrical cases in 1880. In 1902 Von Steinbuchel of Gratz first suggested the use of scopolamin and morphine analgesia. Grauss of Frieburg followed with a series of cases which were successful in from 70 to 90 per cent.

Children are very susceptible to opium; even one-tenth of a grain may cause death, one-tenth to one-twelfth grain having caused death in infants one to five days old. M. I. Smith found that the toxicity of scopolamin-morphine combination in the mouse is increased with a relative increase of scopolamin content of the combined dose.

PHYSIOLOGICAL ACTION OF NITROUS OXIDE.

The gas on entering the lungs is distributed throughout the alveoli and is taken up by the blood. Just how nitrous oxide is taken up is not definitely known, there being no positive evidence that it forms any combination with hematine, or any other substance within the blood, but it is highly probable that it does. Davy's experiments prove that nitrous oxide has a power of turning out oxygen or air from water, or it is probable that in addition to its preventing the access of fresh oxygen to the venous blood, it actually dislodges more or less completely than oxygen which still remains in it when it reaches the pulmonary capillaries. It is possible that nitrous oxide forms a dissociable compound with protein of plasma in the same manner as carbon dioxide does, according to Bohr. In any event we know that nitrous oxide is taken up readily by the blood, when the blood saturated by the nitrous oxide comes in contact with the delicate nerve cell an action is brought about that causes a temporary cessation of their functional integrity, probably due to a physio-chemical character within the protoplasm of the nerve cell, or by effect of limiting the normal process of oxidation.

Charles Teter has given 21,000 gas oxygen anesthetics, over 7,000 for general operative work, 13,000 for oral operations and extracting teeth, with only one death due to shock and cardiac failure.

Gwathmey states that when nitrous oxide is given pure or alone death is always due to oxygen deprivation and asphyxia. The heart continues to beat after respiration has ceased, which proves that death was not due to the failure of the heart.

Most cases which have died under nitrous oxide would probably have died under any other anesthetic. In 90 per cent of the fatality following chloroform anesthesia nothing was found in the heart. Oschner says he has never seen any trouble in organic heart diseases, cases that get along the best are the weak, frail cases or persons who some doctor had advised never to take an anesthetic. Lewis Frank states that the average mortality from chloroform is one in three thousand, ether one in thirty thousand, nitroux oxide one in from seventy-five thousand to seven hundred and fifty thousand, while in scopolamin and morphine narcosis Dr. J. C. Webster's death rate was one in two hundred and fifty.

Dr. C. H. Davis, at the Presbyterian Hospital in Chicago, has been using nitrous oxide in obstetrics during the past two years and has reported a hundred and fifty-four cases and states that in nearly every case a few deep inhalations of gas has relieved the severity of contractions. In no case has labor been delayed, but

rather hastened because of better assistance of the mother. The duration of labor is shortened 25 per cent by the use of nitrous oxide, while in our series of cases labor has been reduced 35 to 40 per cent.

A hypodermic injection of scopolamin and morphine is beyond recall, people have their idiosyncrasies, infants do not stand opium well and the mortality rate is one in two hundred fifty narcoses. While in nitrous oxide analgesia death can only occur from asphyxiation. When given by a person well versed in the art of giving nitrous oxide no bad results will follow.

Eutocia is the desire of mothers. We relieve other suffering, why not relieve the suffering of the mother; the cost is what is considered. A patient with appendicitis does not think of the cost of the operation, their desire and the desire of the doctor is to be relieved and the cost is only a secondary consideration. The cost of an anesthetic should not be considered when the welfare of the patient is of paramount importance. Dr. Mosher, in his recent article in the Kansas State Journal, states that it cost a doctor friend of his about $25 for gas he used with his wife in childbirth. The doctor probably was a novice in the art of administering nitrous oxide, because we have found that the cost will range from $1 to $2 per hour.

Today one-half of all cases in the large cities are confined by midwives. If the laity would require the same skill in obstetrics that they do in surgical work, a great percentage of accidents and postpartum infections would be eliminated. With the increase in the use of anesthetics in obstetrics there has been a rapid increase in the mortality rate. There are two and one-half times as many women of child-bearing age who die of puerperal sepsis and other obstetric complications than die each year from tuberculosis.

Dr. Davis' conclusions in his one hundred and fifty-four cases are:

1. Labor is reduced 25 per cent.
2. Average stay in hospital, ten and eight-tenths days.
3. Nitrous oxide does not interfere with the flow of milk.
4. Reduces severity of lacerations.
5. Not necessary to change from nitrous oxide to ether or chloroform.
6. Does not favor post partum hemorrhage.
7. May be used in all types of obstetric cases.

Dr. Bevan discusses the use of nitrous oxide in the following way:

1. Safety, gas for short anesthesia such as pulling teeth, opening abscesses and so forth; in long anesthesia gas is not known to be more dangerous than ether. I refer now to the use of gas and ether in the hands of experts. In non-experts gas in prolonged anesthesia is much more dangerous than ether.
2. Comfort, gas is the most agreeable inhalation anesthetic.
3. Gas is not an efficient anesthetic such as chloroform or ether, complete anesthesia and complete relaxation for prolonged periods are difficult to maintain and are not possible in a certain percentage of cases.
4. Control, gas can be stopped at danger signal and the agent already in the system is eliminated more rapidly than any other agent.
5. Simplicity, the apparatus for giving gas is not very complicated, more so, however, than that used in giving ether or chloroform. It is not so adaptable as ether. The apparatus is heavy and cumbersome and somewhat difficult to transport, this difficulty can usually be overcome.
6. After effects on blood tissues and viscera practically negative.
7. Vomiting occurs in but a small percentage of cases.
8. Has little or no effect on immunity.

CONCLUSIONS.

Gas should be one of the general anesthetics employed in surgical clinics. Its place should be for short anesthesia in which unconsciousness is desired and local anesthesia not applicable as in reducing fractures and dislocations, opening abscesses and in some prolonged operations in which for some special reason gas be-

comes safer than ether as in cases with kidney insufficiency. A surgical clinic which does not employ gas anesthesia is from the standpoint of anesthetics a poorly conducted clinic.

One question that is always asked, what effect does gas, ether, chloroform, scopolamin and morphine, have on the fetus.

1. It is generally considered that morphine and scopolamin have some effects on the baby.

2. Graham's experiments prove that chloroform is responsible for some hemorrhagic disease of the new-born.

3. Fetus may become anesthetised by the use of inhalation of ether by the mother.

4. Dr. Webster says babies cry as quickly when gas has been used as if mother had no anesthetic. Out of their forty cases of Cesarean section all normal full-termed babies delivered have lived.

At Bethany Hospital we have had four cases of eclampsia, three Cesarean sections, one breech and version, three forceps, two pairs of twins, nine normal cases, ten of them were primapara, eight multipara, in which nitrous oxide was used.

The average length of labor in the normal cases was ten and seven-tenths hours, while the average without gas will run seventeen hours in a primipara and twelve hours in a multipara.

One premature infant still borth. Cesarean section.

One mother died on the eleventh day of eclampsia.

One eclampsia case died on the seventh day, death due to carcinoma of the liver.

Two still births.

Twenty-five per cent mortality rate in eclampsia cases where death was caused by eclampsia, while the average rate is from 25 to 50 per cent.

GAS-OXYGEN ANALGESIA IN OBSTETRICS

Case	Age	Primipara	Multipara	Description of Case	No. of hours in labor	Length of time of administration of gas	Complications following delivery	No. of days in bed	No. days in hosp. after delivery	Wt. of infant at Birth	Wt. of infant at 1st day	Wt. of infant at 2nd day	Remarks
1	----	------	Yes	Eclampsia Cesarean Section	------	45 min.	None	?	23	Babe died 1 hr. after birth			Premature infant 7 mo.
2	----	------	Yes	Normal L.O A.	8	1½ hr.	Albuminuria	8	11	6¼	6⅛	6⅛	Both mother and babe recovered well
3	19	Yes	------	Forcep delivery L.O.P.	20	15 min.	Eclampsia on 9th day	8	----	7½	7½	7½	Mother died on 9th day
4	----	Yes	------	Eclampsia Cesarean Section	------	45 min.	Death due to carcinoma of liver	----	----	4¾	4¾	4¾	Mother died on 7th day
5	32	------	Yes	Forcep delivery	13	2½ hr.	None	11	15	9½	------	------	Still birth
6	24	------	Yes	Breech & version	18	30 min.	None	11	16	10⅛	10 1/16	10	Mother and babe in good condition
7	23	Yes	------	Eclampsia Cesarean Section	9	35 min	Died on 2nd day	----	----	5¾	5¾	------	Babe in good condition
8	23	Yes	------	Normal	20	3 hr.	None	7	8	6 1/16	6	6	Condition good
9	34	------	Yes	Eclampsia Dilated—Deliver'd	6	3 hr.	None	25	26	------	------	------	Still birth
10	24	Yes	------	L.O.A. Normal	9	1½ hr.	None	10	11	7⅛	6¾	6¾	Condition good
11	34	Yes	------	L.O.A. Normal	6	1½ hr.	None	10	14	8⅜	8	8⅞	Condition good
12	28	Yes	------	Forceps. Twins	12	3½ hr.	None	10	20	1 5½ 2 5½	5¼ 5½	5¼ 5¼	Both in good condition
13	40	Yes	------	Normal.	9	45 min.	None	9	10	7⅛	7 5/16	7⅛	
14	27	------	Yes	Normal. Twins	4	3 hr.	None	10	16	1 6½ 2 6⅝	6½ 6⅝	6¼ 6⅜	Both in good conditlon
15	28	------	Yes	L O.A. Normal	6	1¾ hr.	None	13	14	8	8	7¾	Condition good
16	22	Yes	------	R.O.A.	11	1½ hr.	None	12	14	7⅜	7 5/16	7¼	Condition good
17	23	------	Yes	L.O.A.	5½	1 hr.	None	9	11	9 1/16	8⅝	8½	Condition good
18	29	Yes	------	R.O.A.	14	45 min.	None	13	14	6 1/16	6½	6 3/16	Condition good
19	40	Yes	------	L.O.A. Forceps	20	4½ hr.	None	9	14	5¾	5¾	5	Condition good

Our normal cases—conclusions are:

1. Labor reduced 35 per cent.
2. Average stay in bed, nine days.
3. Average weight of infants, seven pounds.

Holt states that average loss of babies' weight is 11 per cent. In our series it ran between four and five per cent.

4. No interference with the supply of milk.
5. No severe lacerations.
6. No post partum hemorrhages.
7. All infants cried as readily as if no gas had been given.
8. Mothers are readily accustomed to the use of gas and each was asked the same question, would she prefer to leave the gas off for the next pain, each one would grasp the mask and hold it tight over her face, saying it relieved her pains absolutely.

BIBLIOGRAPHY.

Bevan—Journal A.M.A., 1915, Vol. 65.
Teter, Nitrous Oxide and Oxygen as general anesthetics.
Davis, Painless Childbirth. Interstate Medical Journal, December, 1916.

Home Service Work of American Red Cross.

ALFRED FAIRBANKS, St. Louis, Mo.
Division Director, Civilian Relief.

Every physician will be interested in the plan of the American Red Cross for the care of families of enlisted men. Each of the thirteen divisions of the American Red Cross has a Division Director of Civilian Relief corresponding to the Director-General of Civilian Relief at Washington. The Southwestern Division is composed of Missouri, Arkansas, Texas, Kansas and Oklahoma, with headquarters at St. Louis.

Each Red Cross Chapter has appointed a Home Service Section of the Committee of Civilian Relief and it is the duty of this section to see that no soldier's or sailor's family suffers because a member of it has gone to the front. These sections are rapidly qualifying themselves to give advice and counsel, and if necessary, financial assistance. They are usually made up of seven members and very often a physician is asked to serve as one of the members. Chapters are not asked to assist financially unless the separation allowance made by the Government and the man's allotment of part of his pay is not sufficient to provide for the family, when the chapters are asked to make up the deficit out of the chapter's funds. The Government War Insurance Bill is only compulsory in regard to the man's wife and children. Often a soldier will have to be induced to make allotments for his other relatives when they are in need.

There are many opportunities of service that are not financial, such as advice about schooling of children, health of children, health of mother, securing positions for children becoming of working age, attending to legal matters, etc.

These types of cases will show some forms of service:

Case 1.—Mother with daughter 25, son 22 and daughter 13. Son is drafted. Mother taken dangerously ill, without hope of recovery. Oldest daughter must resign her position, paying $35 per month, to nurse mother. The soldier's allotment of $20 only income.

Home Service Section investigated, and found an excellent family never in want before, now in dire straits and needing great assistance. Chapter made a grant of $10 a week to provide finances for living expenses, medicines, doctor bills, etc., and are making encouraging calls to the family and assisting the daughter in nursing her mother. Financial relief alone would not have been enough in this case.

Case 2.—Man enlisted in army and married in June, 1917, asked for discharge in October on the grounds of a dependent wife who was an expectant mother. Army officials refused discharge because marriage took place after declaration of war. Woman has no relatives and soldier's relatives, who live in another part of the United States, are unable to assist.

Home Service Section found facts as stated correct, made arrangements for the wife's confinement, assigned a big-hearted motherly woman as counsellor for her, and

assisted her with additional funds necessary over and above the soldier's allotment. This was splendid home service, for it comforted an expectant mother and by the same effort relieved the worried mind of the soldier father.

Case 3.—An aged farmer and his wife had two sons, 25 and 22 years old respectively. The older boy was drafted. Two weeks later the second boy was taken ill suddenly and died. The old folks were distracted, not only because of the loss of both sons, but because they had a growing crop, their only means of support, without anyone to gather it.

Home Service Section marshalled the neighboring farmers, gathered the crop, helped to market it, and give kindly advice and assistance to the old people. That was all that was needed, but it was good home service.

Case 4.—Referred by Canadian Patriotic Fund. American citizen enlisted in Canadian forces, leaving a wife and four children in United States. Man formerly earned $150 per month and took excellent care of his family. He made an assignment of $20 or his pay; the Canadian Government made an additional separation allowance of $20, total $40 per month. Woman willing to readjust her mode of living, but to drop from $150 per month income to $40 per month was impossible without great sacrifice to health and environment of children.

Home Service Section investigated, found an excellent family and enthusiastically recommended grant of $10 per month to be added to the $40. This was enough to relieve this woman of the constant worry and fear which was rapidly driving her to a neurotic condition. There will be many cases like this for the Red Cross.

Case 5.—Referred by Commandant of Army Post. Soldier had deserted and when recaptured gave as his excuse that the fear of his wife and children starving in Chicago drove him to it.

Home Service investigation showed man well known to all charities of Chicago because of his absolute failure to support his family and his frequent desertion and long absence from them. Soldier compelled him to make an allotment of $20 per month for their support, and at wife's request (this being her first dependable income from him), man was kept in the army. Our Home Service report helped the Commandant, too, for he no longer felt like a brute in handling this "poor man" and began at once to make a real man out of this soldier.

Other examples might be given to show the need of safeguarding women and children from harmful labor, arranging for proper housing and necessary medical attention, protecting lonely and inexperienced young wives, securing the best legal advice and other needs of vital importance to a normal family life.

Every physician can feel assured that the Red Cross Chapter of his community will be interested in every family of a soldier or sailor that may be in need of any of the forms of service which the Home Service Section of the Chapter is prepared to give. Many physicians will see in this Red Cross activity an opportunity for service that will go far to keeping the rising generation protected and safe until they are ready and competent to take their places in the world's activities.

———R———

An interesting clinical lecture of a case of polycythemia by Beifield is reproduced in the International Clinics for September. He deals with the differential diagnosis between polycythemia and other conditions associated with an increase in the number of red blood corpuscles, such as Osler-Vaquez's disease and Geisbock's disease or polycythemia hypertonia. The treatment of polycythemia is largely symptomatic. For this purpose venesection is the most efficient agent. In Beifeld's case the blood pressure fell from 220 m.m. systolic and 130 diastolic to 170 m.m. systolic and 100 diastolic. In addition the red cells fell from 9,600.000 to 8,400.000, the hemaglobin from 115 to 105 per cent. The venesection must be repeated from time to time.

THE JOURNAL
of The
Kansas Medical Society

W. E. McVEY, M.D. - - - - - Editor

ASSOCIATE EDITORS — C. W. REYNOLDS, C. C. GODDARD, P. S. MITCHELL, O. P. DAVIS, J. J. BROWNLEE, E. S. EDGERTON, K. P. MASON, H. N. MOSES, C. S. KENNEY, D. R. STONER, J. A. DILLON, E. M. CARTER.

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Merry Christmas.

Let's celebrate, as best we can, the birth of one—a God-like man—He who was the great physician—who healed the sick, the halt, the lame, and left with us a Holy name—who taught us love was our life's magician. Let's greet our friends and all our foes, our patients, too, with all their woes, the sorely in need and their petition; this day, at least, of all the year, let's greet them all with smiles and Christmas cheer.

Reserve Medical Officers' Reserve Corps.

At a meeting of the Committee of National Defense, recently held in Chicago, it was decided to petition Congress to create a Reserve Officers' Reserve Corps. If this should be done every qualified physician will be given an opportunity to join and from this corps the Surgeon General will be able to select such men as may be required for service at home or abroad.

Your Income Tax.

Physicians whose gross annual incomes exceed $6,000 are required to pay, in addition to the regular tax and surtax, a special tax of 8 per cent. This is a provision of Section 209 of the present tax law and applies to professional men only.

Whether this provision of the law was an error or an oversight will make no particular difference to the men who are fortunate enough to have an income in excess of $6,000. Some hope is expressed that this Congress will revise this section of the law so that professional men will be relieved of this additional burden.

Dr. A. B. Jones.

Adna Balche Jones, WaKeeney, Kansas, was born March 21, 1857, at Grafton, New Hampshire, and died October 26, 1917, in the University Hospital, Kansas City, Mo.

September 29, 1877, at Green Mountain, Iowa, he married Clara Gibson, who, with her two sons, remain to mourn his loss.

At an early age he moved with his parents to Iowa, and grew to manhood in a small town near Des Moines. He received his pre-medical education in the Grinnell College, after which he first studied medicine at the medical department of the Iowa State University at Iowa City, and later at Rush Medical College, where he graduated in 1882. He immediately began the practice of medicine and surgery at WaKeeney, Kansas, where he remained, never changing his location. As a general practitioner he enjoyed a large practice over a vast territory. For a number of years he was one of a very few qualified physicians in Western Kansas. His preparedness, combined with a strong genial personality, assured him the confidence and loyalty of his patronage. Other physicians called him in consultation more than any other in his territory.

For thirty years he was district surgeon for the Union Pacific Railroad Company, and was for many years county health officer. He also represented Trego County in the Kansas Legislature several sessions. Besides much town property, he owned a 2,000-acre ranch, and was always foremost in the advancement and progress of agricultural methods along scientific lines in Western Kansas.

The death of Dr. Jones caused grief and mourning in many Western Kansas homes.

The medical department of the army deserves a great deal of credit for the efficient management of the epidemic of meningitis that occurred at some of the camps. Late reports indicate that the disease is now well under control.

———℞———

Information has just been received by the Journal that, at a recent trial in the District Court of Pratt County, Dr. B. J. Patterson and his partner, Dr. Gregoire, were convicted of manslaughter. Our correspondent gave us no information as to the nature of the charges upon which they were convicted.

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According to some recent literature sent out from St. Louis it seems that physicians who have need for the use of alcohol in their practice, for whatever purpose, except as a beverage, must secure a government permit and give a bond in accordance with the amount of alcohol they are likely to keep on hand. This does not seem to affect Kansas physicians, however, since the state law prohibits them having or using alcohol for any purpose whatever.

———℞———

We are hearing a great deal about the danger of venereal infection in the various army cantonments. The danger has been greatly magnified if the official reports on the health of these camps stand for anything. For many years very stringent regulations for the prevention of venereal diseases have been enforced in the army and, whether these regulations are still rigidly enforced or the sources of infection have been eliminated, the number of cases of venereal disease reported each week hardly justifies any alarm for the welfare of the soldiers. For the week ending November 16 there were reported forty cases of venereal disease at Camp Funston where there were 26,645 men. It is doubtful if there is a city in the United States that could make so good a showing.

———℞———

Representatives of the Anti-Tobacco League have been making an energetic campaign in this state. There has been a great awakening. The extremely great danger to cats from the use of tobacco has been publicly demonstrated by the administration of nicotine to these animals. In these experiments a sufficiently large dose of nicotine was administered to demonstrate the poisonous effects of a fatal dose. The school children and visiting adults were greatly impressed.

It reminds one of the early campaign against intemperance when the effects of alcohol were demonstrated in the public schools. The lecturer, after pouring alcohol into a flask containing egg albumen, would solemnly assure the children that the effects they saw there were the same as that caused by alcohol on the brain.

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SOCIETY NOTES.

SHAWNEE COUNTY SOCIETY.

The Shawnee County Medical Society held its annual meeting on Monday evening, December 3. There was a short business session at which the election of officers occurred. For the second time in the history of the society a president was re-elected for a second term. Dr. M. B. Miller, who has served the society well and faithfully and who, since Dr. Brown was called into active service, has performed the duties of secretary also, was unanimously elected to serve another term as president. Dr. W. F. Bowen was re-elected vice-president and Dr. W. M. Mills was re-elected treasurer. Dr. Robert B. Stewart was elected secretary.

The meeting was held in the Pelletier Tea Rooms where a very elaborate dinner was served to the members, their wives and friends. During the dinner the famous Modoc Club made its appearance and entertained the company with songs.

After dinner the members and their guests adjourned to another hall where several very interesting films secured from the Clinical Film Company were shown.

JEWELL COUNTY SOCIETY.

In the report of the annual meeting of

the Jewell County Society, published in the November number of the Journal, an error appeared. We should have said that Dr. J. A. Poppen of Ionia was elected president and Dr. E. R. Nutter of Burr Oak, vice-president.

WYANDOTTE COUNTY SOCIETY.

The Wyandotte County Medical Society met in the Carnegie Library, Tuesday evening, December 4.

Dr. Preston Sterrett opened the discussion on the subject of "Ethics," and Dr. D. E. Clopper on the subject, "Business."

DECATUR-NORTON COUNTY SOCIETY.

The Decatur-Norton County Society met at Phillipsburg on Friday, November 15. The following program had been prepared:

"Treatment of Minor Injuries," A. E. Nelson.

"Eclampsia, Puerperal," R. M. Tinney.

"Finesse, in the Diagnosis of Tuberculosis, Early," C. S. Kenney.

Public lecture at 3 P.M.

"The Necessity of Preventing Diseases," I. L. Parker.

"Injuries About the Elbow Joint," W. C. Lathrop.

"Pneumonia Lobar, Care of Patient," H. N. Norris.

"La Grippe, Cause, Treatment, Sequelæ" J. L. Shoemaker.

BOOKS.

Impotence and Sterility

With aberrations of the sexual function and sex-gland implantation, by G. Frank Lydston, M.D., D.C.L. Price, $4. Sold by subscription only. Sent postage prepaid on receipt of subscription price. The Riverton Press, Chicago, Ill.

There are many books for which the authors need to make some excuse. On the other hand there are a few men in the medical profession who have devoted their best years to the study of certain diseases or the perfection of therapeutic procedures, who have a lifetime of research and thought and experience upon which to base their opinions, and such men need no excuse. The fact that they have something to write and are willing to write it is sufficient.

It will be instructive and beneficial to any one who will read Lydston's general considerations of Diseases of the Sexual Functions and Instincts as presented in the second chapter of this book. Those who have read the occasional reports of his work in sex gland implantation will be greatly pleased to have this opportunity to read in detail the history of this work and the results obtained.

White and Martin's Genito-Urinary Surgery and Venereal Diseases.

By Edward Martin, A.M., M.D., F.A.C.S.; John Rhea Barton, Professor of Surgery, University of Pennsylvania; Benjamin A. Thomas, A.M., M. D., F. A. C. S., Professor of Genito-Urinary Surgery, Polyclinic Hospital and College for Graduates in Medicen, and Instructor in Surgery, University of Pennsylvania; and Sterling W. Moorhead, M.D., F.A.C.S., Assistant Surgeon to Howard Hospital, Philadelphia. Four hundred twenty-two engravings and twenty-one colored plates. Tenth edition. J. B. Lippincott Co., Philadelphia and London. Price, $7.

For twenty years White and Martin's Urinary Surgery and Venereal Diseases has held a prominent place in the libraries of the medical profession. There are only a few works on medical subjects that have been so favored. It is exhaustive and conclusive. It is dependable and embodies the accumulated evidence from wide experience and careful research.

In the tenth edition those things have been added which are necessary to bring the work up to date, but nothing of value has been omitted.

International Clinics.

Volume III of the Twenty-Seventh Series. A quarterly of illustrated clinical lectures and especially prepared original articles by leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, with the collaboration of Charles H. Mayo, M.D. Published by J. B. Lippincott Company, Philadelphia and London. Price, $2.00.

In this volume of the International Clinics will be found a report of a very interesting and instructive clinic given at the Philadelphia Polyclinic Hospital by Dr. B. A. Morris, showing a number of cases and in which the following subjects are discussed: Treatment of Syphilis, Cystourethroscopy, Chromo-ureteroscopy, Urethral Polypi, Ureteral Calculus, Chronic Sem-

inal Vesiculitis, Chronic Prostatitis and Prostatic Hypertrophy, Tuberculosis of Kidney.

In this number there is also a very interesting clinical lecture by Ormsby covering the subjects of Lichen Planus, Psoriasis, Leprosy, Naevi, Syphilis, Blastomycosis, Lupus Vulgaris.

Then there is a series of lectures by Cumston of the University of Geneva on Intracranial Hemorrhage. There are a large number of very instructive papers and clinics in this number.

The Medical Clinics of North America.

Volume I, Number 2 (the Philadelphia Number, July, 1917). Octavo of 269 pages, 28 illustration. Philadelphia and London: W. B. CSaunders Company, 1917. Published bi-monthly. Price per year: paper, $10; cloth, $14.

The plan which is followed in the publication of the Clinics is proving to be extremely satisfactory. The Philadelphia Number is particularly attractive. Every article is well worth careful reading. One can only realize how much he is getting in these numbers of the Clinic after absorbing the contents of this number. It would require a very up-to-date library of considerable size to cover the same ground. The subjects are those of general interest to the practitioner and the material is quite up to date. We can not say too much in praise of the Clinics of North America.

The Surgical Clinics of Chicago.

Volume I, Number 5 (October, 1917). Octavo of 214 pages, 84 illustrations. Philadelphia and London: W. B. Saunders Company, 1917. Published bi-monthly. Price per year: paper, $10; cloth, $14.

In the October number of the Surgical Clinics, Bevan gives a clinic on Tumors of the Breast; Ochsner has an interesting clinic on Varicose Veins of the Leg; Ridlon has one on Hip Disease; Eisendrath has one on Complications of Appendicitis. Then there are clinics by Halstead, Harris, Andrews, Phemister, Perry, Beck, Kretschmer, Watkins, McKenna, Mock, Straus and Speed; all of which are up to the high standard set by the publishers of the Clinics.

Our Honor Roll.

A letter was sent to the secretary of each county society requesting him to furnish a list of the members of his society who have applied for commissions in the Medical Corps or Medical Reserve Corps of the army, with the rank and addresses, if in active service.

We are giving below the information as furnished. We regret its incompleteness and indefiniteness. Many of the secretaries failed to respond. In several instances the secretaries were themselves in the service. In a few such cases the letter was returned to us or referred to the acting secretary. There were a good many, however, who simply did not consider the matter of enough importance to give it attention.

We are anxious to make the roll complete and will ask that any one who may be able to do so will give the Journal such information as they can, in correction of or in addition to that herein published.

The Journal will be sent regularly to all those in the service when we can secure the proper addresses.

Allen County Society—
- Lieut. O. L. Garlinghouse, M.R.C. (Iola).
- Lieut. H. M. Webb, M.R.C. (Humboldt).
- Lieut. J. I. Simpson, M.R.C. (Moran).
- Lieut. J. S. Sutcliff, M.R.C. (Iola).

Atchison County Society—
- Lieut. W. F. Smith (Atchison), M.R.C., Ft. Riley.
- Lieut. S. M. Myers (Potter), M.R.C.
- Lieut. T. E. Horner (Atchison), M.R.C.
- W. K. Fast (Atchison), applied.
- C. W. Robinson (Atchison), applied.

Anderson County Society—
- Lieut. T. A. Hood (Garnett), M.R.C., Ft. Riley.
- Lieut. A. B. Cullum (Garnett), M.R.C., Ft. Riley.
- A. J. Turner (Garnett), applied.
- L. D. Mills (Greeley), applied.
- D. L. Heidrick (Welda), applied.
- C. A. Forsythe (Lone Elm), applied.
- W. J. Hatfield (Colony), applied.
- J. A. Milligan (Garnett), applied.
- D. L. Simmons, applied.

Brown County Society—
- Capt. W. C. Palmer (Hiawatha), U. S. Inf., Camp Funston.
- Lieut. H. L. Goss (Horton), M.R.C.
- Lieut. J. S. Rushton (Morrill), M.R.C.
- Lieut. H. J. Harker (Horton).

Barton County Society—No report.

Butler County Society—No report.

Bourbon County Society—
- Lieut. J. E. Lardner (Fort Scott), M.R.C., Camp Funston.
- Lieut. G. S. Lambeth (Bronson), M.R.C., "Somewhere in France."
- Capt. J. F. McGill (Fort Scott), M.R.C., Fort Leavenworth.

Lieut. J. R. Brinkley (Fulton), M.R.C., relieved.
Crawford County Society—No report.
Central Kansas Society—No report.
Cloud County Society—
Lieut. M. L. Belot (Clyde), M.R.C., Camp Funston.
Lieut. F. J. Moffatt (Clyde), M.R.C., School of Roentgenology, Kansas City.
R. J. McLaughlin (Clyde), applied.
Cowley County Society—No report.
Chautouqua County Society—No report.
Clay County Society—No report.
Cherokee County Society—
Lieut. H. H. Brookhart (Columbus), M.R.C.
Coffey County Society—
Lieut. D. W. Manson (Burlington), M.R.C., Fort Riley.
Capt. M. L. Stockton (Gridley), M.R.C., Fort Riley
Lieut. C. C. Culver (Burlington), M.R.C.
Major H. T. Salisbury (Burlington), M.C.,U.S.N.G., Camp Doniphan.
Lieut. F. C. Boggs (Waverly), M.C.,U.S.N.G., Field Hospital, Camp Doniphan.
Lieut. S. A. McCool (Neosho Falls), M.R.C., Fort Riley.
H. G. Herring (Leroy), applied.
Doniphan County Society—
Lieut. W. A. Gartner (Troy), M.R.C., Fort Riley.
Asst. Surg. H. R. Boone (Highland), U.S.N.M.F., U.S.S. Brutus.
Dickinson County Society—
Lieut. Chas. A. Dieter (Hope), M.R.C.
Lieut. A. E. Harrison (Herington), M.C.,U.S.N.G.
Lieut. D. O. Jackson (Manchester), M.C.,U.S.N.G., Camp Doniphan.
Lieut. H. W. Wright (Enterprise), M.R.C.
W. S. Moore (Longford), passed for commission.
Decatur-Norton County Society—
Lieut. C. W. Cole (Norton), M.R.C., Camp Beauregard, Alexander, La.
Lieut. F. D. Kennedy (Norton), M.R.C., Ft. Leavenworth.
Douglas County Society—
Lieut. Mark Beach (Clinton), Ft. Riley.
Lieut. E. R. Kieth (Lawrence), relieved.
Capt. H. L. Chambers (Lawrence), Ft. Riley.
Lieut. R. E. Barnes (Lawrence).
Maj. Carl Phillips (Lawrence), Camp Doniphan.
Elk County Society—No report.
Franklin County Society—
Lieut. Geo. W. Davis (Ottawa), M.R.C., 11th U. S. Cav. Remount Station, Camp Pike, Little Rock, Ark.
Asst. Surg. W. T. Brown (Williamsburg), U.S.N.R.F., 617 Common St., New Orleans, La.
Lieut. C. C. Bennett (Rantoul), M.C., 187th U.S. Inf., Camp Doniphan.
Lieut. Alexander Haggart (Ottawa), M.R.C., Fort Riley.
Lieut. D. H. Smith (Richmond), M.R.C.
Geary County Society—
Capt. W. A. Carr (Junction City), M.R.C., Sanitary Dept., Camp Funston.
Major F. W. O'Donnell (Junction City), M.R.C., Depot Brigade 89th Division N. A., Camp Funston.
Capt. L. S. Steadman (Junction City), M.R.C.
Harvey County Society—
Lieut. R. Hertzler (Newton), M.R.C., 23d U. S. Inf., Postmaster, N. Y.
Lieut. H. H. Hudson (Newton), M.R.C., Camp Doniphan.
Capt. J. R. Scott (Newton), M.R.C., Ft. Riley.
Lieut. H. M. Glover (Newton), M.R.C., 1st Kansas Ambulance Co., 110th Sanitary Train, Camp Doniphan.
Lieut. R. H. Hartman (Newton), M.R.C., 1st Kansas Ambulance Co., 110th Sanitary Train, Camp Doniphan.
Lieut. L. T. Smith (Newton), M.R.C., inactive list.
Harper County Society—
Capt. B. F. Hawl (Anthony), M.R.C.
Lieut. Chas. B. Stephens (Waldron), M.R.C.
Lieut. C. E. Pessler (Anthony), relieved.
Jefferson County Society—
Lieut. Frank Shaeffer (McLouth), Ft. Riley.
Johnson County Society—No report.
Jackson County Society—
Capt. Chas. M. Sevier (Holton), M.C.,U.S.N.G.
Lieut. Joseph Adams (Soldier), M.R.C.
Lieut. T. M. Greenwood (Circleville), M.R.C.
Capt. W. L. Wilmoth (Dennison), M.R.C.
Lieut. C. J. Bliss (Mayetta), M.R.C.
Lieut. J. E. McManus (Havensville), M.R.C.
Jewell County Society—No report.
Kingman County Society—No report.
Leavenworth County Society—
Capt. C. J. McGee (Leavenworth), Co. 11, M.O.T.C., Fort Riley.
Capt. J. H. Langworthy (Leavenworth), M.R.C., Ft. Leavenworth.
Lieut. C. E. Brown (Leavenworth), M.R.C., Fort Leavenworth.
Lieut. F. B. Taylor (Leavenworth), M.R.C., Fort Leavenworth.
Lieut. P. B. Matz (Leavenworth), M.R.C., Fort Sam Houston, Texas.
Lieut. A. T. Adams (Easton), M.R.C.
Lincoln County Society—No report.
Labette County Society—
Lieut. R. M. Bennett (Mound Valley), M.R.C.
Lieut. A. R. Nash (Parsons), M.R.C., Camp Funston.
Capt. P. Christman (Parsons), M.R.C., Camp Funston.
Lieut. J. C. Cornell (Parsons), M.C.,U.S.N.G., Field Hospital No. 2, Fort Sill, Okla.
Lieut. E. A. Lodge (Parsons), M.C.,U.S.A.
Lyon CountySociety—
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Lieut. G. B. Brickell (Americus), Ft. Riley.
Capt. E. E. Haynes (Madison), Ft. Riley.
Linn County Society—No report.
Marshall County Society—
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Capt. G. I. Thatcher (Blue Rapids), M.R.C.
McPherson County Society—
Lieut. A. Engberg (McPherson), M.R.C., New Mexico.
Lieut. S. N. Mallisson (Canton), M.R.C.
Miami County Society—
Lieut. F. L. McDaniel (Osawatomie), U.S.N.M.F., U.S.S. Balsh.
Lieut. B. F. Fraser (Osawatomie), U.S.M.C., Army Medical School.
Marion County Society—
Lieut. J. F. Coffman (Marion), M.C.U.S.N.G., Camp Doniphan.
Capt. E. B. Johnson (Peabody), M.R.C., Ft. Ben Harrison.
Lieut. H. Brunig (Hillsboro), M.R.C., Camp Funston.
Lieut. L. S. Wagar (Florence), M.R.C., Camp Funston.
Lieut. Clyde Appleby (Peabody), M.R.C., relieved.
Mitchell County Society—
Lieut. K. P. Mason (Cawker City), M.R.C., Co. 13, Camp Funston.
Montgomery County Society—
Lieut. S. A. Alford (Independence), M.C.,U.S.N.G., Fort Riley.
Lieut. W. G. Norman (Cherryvale), M.R.C., Fort Riley.
Lieut. I. B. Chadwick (Tyro), M.R.C., Fort Riley.
Lieut. Thos. Matlock (Coffeyville), M.R.C., Chicago, Ill.
Morris County Society—No report.

Nemaha County Society—
Capt. F. F. Carter (Seneca), inactive list.
Lieut. C. E. Toll (Seneca).
Lieut. W. H. Heuschele (Corning).
Lieut. J. C. Maxson (Corning).
Lieut. P. V. Annadown (Centralia).
Lieut. W. G. Bouse (Centralia).
Lieut. S. M. Hibbard (Sabetha).

Neosho County Society—No report.

Osage County Society—No report.

Osborne County Society—
Lieut. E. A. Drake (Natoma), M.R.C.

Pawnee County Society—No report.

Pratt County Society—
Lieut. J. R. Campbell (Coats), M.R.C.
Capt. H. Atkins (Pratt), M.R.C., Fort Riley.
C. E. Martin (Cullison), applied.

Republic County Society—
Lieut. C. V. Haggman (Scandia), M.R.C., Ft. Riley.
J. W. West (Narka), applied.

Rice County Society—
Lieut. Marion Truehart (Sterling), Douglass, N. M.

Reno County Society—
Lieut. L. A. Clary (Hutchinson), Hawaii.
Capt. H. L. Scales (Hutchinson), Ft. Riley.
Lieut. W. L. Mundell (Hutchinson), Camp Funston.
Lieut. N. A. Seehorn (Hutchinson), Camp Pike.
Maj. C. S. Evans (Hutchinson), Camp Doniphan.
Lieut. L. J. Beyer (Hutchinson), inactive list.
Lieut. E. C. Taylor (Pretty Prairie).
Lieut. R. W. Springer (Pretty Prairie).
Lieut. W. H. Kirkpatrick (Haven).
Lieut. W. C. Bundurant (Partridge).
Lieut. James Ungles (Langdon).
G. A. Blasdel (Hutchinson), applied.
G. R. Gage (Hutchinson), applied.

Riley County Society—
Lieut. R. R. Cave (Manhattan), M.C.U.S., "Somewhere in France."

Stafford County Society—
Lieut. C. S. Adams (St. John), M.R.C., Camp Funston.
Capt. J. C. Butler (Stafford), M.R.C., Camp Funston.
Lieut. O. Liston (Hudson), M.R.C., Camp Funston.
Lieut. J. A. H. Webb (Stafford), M.R.C., Camp Funston.

Sedgwick County Society—
Lieut. W. I. Mitchell (Wichita), M.R.C., Ft. Riley.
Lieut. G. K. Purvis (Wichita), M.R.C., Ft. Riley.
Lieut. W. A. Phares (Wichita), M.R.C., Ft. Riley.
Lieut. W. R. Greening (Wichita), M.R.C., Ft. Riley.
Capt. L. M. Metassarin (Wichita), M.R.C., Ft. Riley.
Lieut. R. W. Hissem (Wichita), M.R.C., Ft. Riley.
Lieut. W. T. Doherty (Wichita), M.R.C., Ft. Riley.
Lieut. R. O. Logsdon (Wichita), M.R.C., Ft. Oglethorpe.
Lieut. R. A. Dart (Wichita), M.C., U.S.A.

Sumner County Society—
Capt. J. S. Rudolph (Belle Plaine), Ft. Oglethorpe.
Lieut. D. E. Kessicker (Caldwell), Ft. Riley.
Lieut. J. C. McKinnon (Caldwell), Ft. Riley.

Smith County Society—
Lieut. V. E. Watts (Smith Center), M.R.C. (commission received).

Southwest Kansas Society—
Lieut. R. T. Nichols (Liberal), M.R.C., Ft. Riley.
Lieut. A. L. Knisely (Liberal), M.R.C., Camp Bowie, Fort Worth, Texas.
Lieut. B. H. Day (Hugoton), M.R.C., Fort Riley.
Lieut. Jas. Donnell (Kinsley), M.R.C., relieved.

Saline County Society—
Major J. D. Riddell (Salina), M.R.C., Ft. Riley.
Lieut. C. M. Fitzpatrick (Salina), M.R.C., Dept. of Roentgenology, Fort Des Moines, Iowa.
Lieut. J. W. Neptune (Salina), M.R.C.
Capt. A. L. Cludas (Minneapolis), M.R.C., Ft. Riley.

Others from Eighth District—
Lieut. F. E. Harvey (Minneapolis), M.R.C., Ft. Riley.
Lieut. G. M. Anderson (Lincoln), M.R.C., Ft. Riley.
Lieut. Malcolm Newlon (Lincoln), M.R.C., Ft. Riley.
F. S. Hawks (Russell).
J. M. Downs (Ellsworth).

Shawnee County Society—
Major S. A. Hammel (Topeka), M.C.,U.S.N.G., Field Hospital, Ft. Sill.
Capt. C. H. Lerrigo (Topeka), M.R.C., Ambulance Co., Camp Pike.
Capt. S. A. Millard (Topeka), M.R.C., Camp Mills.
Lieut. C. C. Lull (Topeka), M.C., 130th F.A.,U.S.N.G., Camp Doniphan.
Lieut. M. K. Lindsay (Topeka), M.C.,U.S.A., Camp Funston.
Lieut. H. K. Rogers (Topeka), M.C., Field Hosp., U.S.N.G., Fort Sill.
Lieut. J. A. Crabb (Topeka), M.R.C., Ambulance Co. 44, Camp Pike.
Lieut. A. M. Dawson (Topeka), M.R.C., Ambulance Co. 44, Camp Pike.
Lieut. J. D. Cook (Topeka), M.R.C., in training at St. Louis.
Lieut. F. J. Ernst (Topeka), M.R.C., Ft. Riley.
Lieut. C. M. Hensley (Topeka), M.R.C., Ft. Riley.
Lieut. A. K. Owen (Topeka), M.R.C., in training at Kansas City.
Lieut. J. G. Stewart (Topeka), M.R.C., Ft. Riley.
Lieut. E. G. Brown (Topeka), M.R.C., 1st Colorado Inf., Camp Kearny, Cal.
Lieut. L. C. Bishop (Topeka), M.R.C., special duty as alienist.
Lieut. G. E. Hesner (Topeka), M.R.C., special duty as alienist.
Lieut. F. L. Loveland (Topeka), M.R.C., special duty, Hattiesburg, Miss.
Lieut. L. M. Tomlinson (Harveyville), M.R.C., Ft. Riley.
Lieut. A. L. Weisgerber (Perry), M.R.C., Ft. Riley.
Lieut. G. V. Allen (Topeka), M.R.C., inactive list.
Lieut. W. K. Hobart (Topeka), M.R.C., Ft. Riley.
Lieut. O. L. Erickson (Topeka), M.R.C., Ft. Riley.

Tri-County Society—
Lieut. C. M. Miller (Oakley), M.R.C.
Lieut. G. Winslow (Grainfield), M.R.C.
Lieut. W. J. Lewis (Colby), M.R.C.

Washington County Society—
Major H. D. Smith (Washington), M.C.,U.S.N.G., Fort Sill.
Lieut. G. A. Tooley (Washington), M.R.C., Scofield Barracks, Hawaii.
Lieut. H. B. Hawthorne (Palmer), M.R.C., Ft. Riley.
Lieut. M. H. Horn (Morrowville), M.R.C.

MISCELLANEOUS

Trade Commission Acts on Salvarsan Patent.

The Federal Trade Commission recently entered orders for licenses to three firms to manufacture the product heretofore known under the trade names of "Salvarsan," "606," "Arsenobenzol," "Arsaminol," patent rights which have been held by German subjects. The orders for licenses are subject to acceptance and agreement by the licensees to the stipulations made by the commission. Upon such acceptance

and agreement, Licenses Nos. 1, 2 and 3 will be formally granted by Secretary L. L. Bracken, acting for the commission.

Hereafter this important drug will be manufactured and sold under the name of "Arsphenamine."

The Trade Commission's action was taken under Section 10 of the Trading With the Enemy Act under direction of Commissioner Fort, upon recommendation of C. H. McDonald, Edward S. Rogers, and Francis Phelps, in charge of granting such licenses. The Public Health Service has prepared rules and standards for the manufacture and testing of "Arsphenamine" and will supervise its manufacture, authority having been conferred on the Public Health Service by the Secretary of the Treasury, and the observance of the rules and standards become a condition of the license.

The three firms which will be hereby permitted to manufacture and sell "Arsphenamine" are Dermatological Research Laboratories, of Philadelphia; Takamine Laboratory, Inc., of New York, and Farbwerke Hoechst Company (Herman A. Metz Laboratory) of New York. The original patent for manufacture of what has heretofore been known as "Salvarsan," etc., was issued to Paul Ehrlich and Alfred Bertheim, German subjects, and assigned to Farbwerke Vormals Meister, Lucius and Druning of Hoechst on the Main, Germany.

The supply of the drug now licensed to be made in America, up to 1915, was almost exclusively obtained by importation from Germany. It is at present the only known specific for virulent blood poison. From the outbreak of the war importation became more difficult.

Before the war began, the patented drug was sold at $4 per dose, which is approximately $3,500 per pound, and speculatively it has brought as high as $35 per dose. While the price of the product is not fixed at this time by the Commission, the right to fix prices is retained, and a price of $1 per dose to the army and navy, $1.25 per dose for hospitals, and $1.50 per dose for physicians, are the prices at which some, at least, of the licensees have stated that they intend to offer the licensed drug.

The enormous shortage of supply on this important product will immediately be relieved, and the article placed in the hands of the Government, the hospitals and the medical profession at a price lower than ever before.

———R———

3,180 Persons in U. S. Medical Units Now Attached to French and British Forces.

There are 3,180 medical officers, nurses, and members of ambulance sections of the United States Army now attached to the British and French forces. This total is made up of 870 medical officers and 470 nurses with the British forces and forty ambulance sections, each with forty-six officers and men (a total of 1,840), with the French Army.

All of this American personnel is loaned to the British and French forces. It is subject to recall and can, if the War Department so decides, be assigned to duty with the American forces. All wear the uniforms of the United States Army. The plans contemplate the replacement of some of these officers and ambulance sections from time to time by fresh units from the United States and the assignment of the experienced units to the American expeditionary forces.

ADDITIONS FOR FRENCH ARMY.

Considerable additions to the number of American ambulance sections attached to the French Army are in prospect. Provision has been made for the formation and training of 120 more sections at Allentown, Pa., all for eventual service with the French Army.

United States Army officers welcomed the chance for American personnel, particularly medical officers, to acquire training under actual service conditions on the western front before they are needed to care for American soldiers. The appreciation of Great Britain and France for the assistance given by this contribution of American personnel has been indicated.

"Great Britain needed medical officers and nurses very much," stated Col. T. H.

Goodwin, who acted with the British Government in making the arrangements with the United States authorities. "We appealed to the United States for assistance and this appeal was promptly and very generously responded to."

PRAISED BY BRITISH OFFICERS.

Surg. Gen. Gorgas has had called to his attention the following comment on the American medical officers made by a surgeon general of the British Army: "They were very fine units * * * and made our task easy in consequence of their willingness and affability. Nothing could have been better." Another comment by a British surgeon general was: "We are making the officers of the units our guests during their stay here. I hope we may be able to make them feel at home. We shall do our best." Again he said: "We are greatly impressed with the American medical officers; their keenness, energy, and quick perception are a positive tonic." —Official Bulletin, Nov. 8.

Mortality Statistics.

The Metropolitan Life Insurance Company invites physicians, public health and social workers to make use of its valuable collection of mortality statistics.

These statistics present the principal causes of death among white and colored wage-earners in the United States and Canada. The material covers over ten million individuals for each of the six years, 1911 to 1916. Death rates are available for each race, by sex and by age period.

The company hopes in this way to aid in the study of disease and disability among wage-earners. It desires to stimulate medical investigation and research. By offering these statistics to the medical profession and to public health and social workers, the company expresses also its appreciation of the co-operation which it has received from physicians and others who have replied to inquiries and have given detailed information in thousands of cases. This assistance has helped to make the statistics more accurate and valuable.

All inquiries should be addressed to Statistical Bureau, Metropolitan Life Insurance Company, 1 Madison Avenue, New York City.

Principal Causes of Death. — Census Bureau's Summary of Mortality Statistics for 1916.

According to a preliminary announcement with reference to mortality in 1916, issued by Director Sam L. Rogers, of the Bureau of the Census, Department of Commerce, and compiled under the direction of Dr. William H. Davis, chief statistician for vital statistics, the "registration area," which contained approximately 70 per cent of the population of the entire United States, reported for that year 1,001,921 deaths. Of these deaths, nearly one-third were due to three causes—heart diseases, tuberculosis, and pneumonia—and nearly another third was charged to the following nine causes: Bright's disease and nephritis, cancer, apoplexy, diarrhea and enteritis, influenza, arterial diseases, diabetes, diphtheria, and typhoid fever.

The deaths from heart diseases (organic diseases of the heart and endocarditis) in the registration area in 1916 numbered 114,171, or 159.4 per 100,000 population. The death rate from this cause shows a marked increase as compared with 1900 (the earliest year for which the annual mortality statistics were published), when it was only 123.1 per 100,000. The increase has not been continuous, however, the rate having fluctuated from year to year.

Tuberculosis in its various forms caused 101,396 deaths in 1916, of which 88,666 were due to tuberculosis of the lungs. Because of progress in the prevention and treatment of tuberculosis of all kinds, the decline in the tuberculosis death rate in recent years has been most pronounced, having fallen from 200.7 per 100,000 in 1904 to 141.6 in 1916, a decrease of nearly 30 per cent. Before 1904 the rate had fluctuated, starting at 201.9 in 1900. Even yet, however, tuberculosis causes more deaths annually than any other malady, except heart diseases, and about 37 per

cent more than all external causes—accidents, homicides, and suicides—combined.

Pneumonia (including bronchopneumonia) was responsible for 98,334 deaths in the registration area in 1916, or 137.3 per 100,000. This rate, although lower than that for any year from 1900 to 1910, inclusive, with the single exception of 1908, is higher than that for any of the years from 1911 to 1915, inclusive. The lowest recorded rate for all forms of pneumonia was 127 per 100,000 in 1914. The mortality from this disease, like that from tuberculosis, has shown a marked decline since 1900, when it was 180.5 per 100,000. Its fluctuations from year to year, however, have been pronounced, whereas the decline in the rate for tuberculosis has been nearly continuous.

The only remaining death rate higher than 100 per 100,000 in 1916 was that for Bright's disease and acute nephritis, 105.2. The total number of deaths due to these maladies in 1916 was 75,316; of this number, 69,395 were caused by Bright's disease and 5,921 by acute nephritis. The mortality rate from these two causes has increased from 89 per 100,000 in 1900, with some fluctuations from year to year.

Cancer and other malignant tumors caused 58,600 deaths in 1916. Of these, 22,480, or nearly 39 per cent, resulted from cancers of the stomach and liver. The death rate from cancer has risen from 63 per 100,000 in 1900 to 81.8 in 1916. The increase has been almost continuous, there having been but two years, 1906 and 1911, which showed a decline as compared with the year immediately preceding. It is possible that at least a part of this increase is due to more correct diagnosis and to greater care on the part of physicians in making reports to registration officials.

Apoplexy was the cause of 58,233 deaths, or 81.3 per 100,000. The rate from this disease increased gradually, with occasional slight declines, from 1900 to 1912, and since 1913 the increase has been continuous.

Diarrhea and enteritis caused 56,763 deaths in 1916, or 79.3 per 100,000. The rate from these diseases has fallen somewhat in recent years, having been 90.2 in 1913, and is very much lower than the corresponding rate for 1900, which was 133.2. Nearly five-sixths of the total number of deaths charged to these causes in 1916 were of infants under two years of age.

Influenza was responsible for no fewer than 18,886 deaths in the registration area in 1916, or 26.4 per 100,000. The rate from this malady, which fluctuates very considerably from year to year, was higher in 1916 than in any preceding year since and including 1900, with the single exception of 1901, when it stood at 32.2.

Arterial diseases of various kinds—atheroma, aneurism, etc.—were the cause of 17,115 deaths in 1916, or 23.9 per 100,000. This rate, although somewhat lower than the corresponding ones for 1912 and 1913, is higher than those for 1914 and 1915. The rate for these causes increased continuously from 6.1 in 1900 to 25.6 in 1912.

Deaths from diabetes numbered 12,199, or 17 per 100,000. The rate from this disease has risen almost continuously from year to year since 1900, when it was 9.7.

No epidemic disease, with the exception of influenza, produced a death rate as high as even 15 per 100,000 in 1916. The fatal cases of diphtheria and croup—which are classed together in the statistics, but, practically all of which are cases of diphtheria—numbered 10,367, or 14.5 per 100,000 population. The rate for diphtheria and croup in 1900 was 43.3, and the decline of nearly 67 per cent from that year to 1916 is relatively greater than that shown by any other important cause of death. The rate fluctuated somewhat from 1900 to 1913, but has fallen continuously since the latter year.

The mortality rate from typhoid fever has shown a most remarkable and highly gratifying decline since 1900, having dropped from 35.9 per 100,000 in that year to 13.3 in 1916. The proportional decrease in the rate, amounting to 63 per cent, is a close second to that shown for diphtheria and croup. The efficacy of the anti-

typhoid vaccine and of the many improvements in methods of sanitation has been demonstrated in a striking manner by this great reduction in the typhoid death rate.

MEASLES, WHOOPING COUGH, AND SCARLET FEVER.

The principal epidemic maladies of childhood—measles, whooping cough, and scarlet fever—were together responsible for 17,586 deaths of both adults and children, or 24.6 per 100,000, in the registration area in 1916, the rates for the three diseases separately being 11.1, 10.2, and 3.3. As in 1913, measles caused a higher mortality than either of the other diseases, but in 1914 and 1915 whooping cough had first place. In every year since and including 1910, as well as in several preceding years, measles has caused a greater number of deaths than scarlet fever. The rate for scarlet fever in 1916 was the lowest on record, while that for whooping cough, although considerably below the highest recorded rate for that disease, 15.8 in 1903, was far above the lowest, 6.5 in 1904.

ACUTE POLIOMYELITIS.

Acute anterior poliomyelitis, commonly called infantile paralysis, caused 7,130 deaths in 1916, representing a rate of ten per 100,000 population. This disease developed in epidemic form in that year, and the resultant mortality showed an enormous increase. The rate from infantile paralysis declined from 2.7 per 100,000 in 1910—the first year in which this malady was reported separately as a cause of death—to one per 100,000 in 1915, the decrease having been continuous from year to year except for an increase between 1911 and 1912. The rate for 1916, however, was ten times as great as that for the preceding year.

Of the twenty-six states in the registration area in 1916, the five showing the highest rates reported 75 per cent of all the deaths from this cause. These states, with their rates, were New Jersey, 41; New York, 32.8; Connecticut, 19.2; Massachusetts, 12.5; and Maryland, 8.1. The next highest five rates appear for Pennsylvania, 7.8; Rhode Island, 7; New Hampshire, 5.6; Montana, 5.2; and Michigan, 4.9.

ACCIDENTS AND INJURIES.

The deaths resulting from accidents in 1916 numbered 60,071, corresponding to a rate of 83.9 per 100,000 population. This rate is considerably in excess of that for 1915 (76.3). The most marked increases appear for deaths due to railroad and to automobile accidents and for those resulting from the effects of heat.

The rate for deaths from railroad accidents in 1916 (11.3) exceeds the corresponding rates for 1914 and 1915 (10.7 and 9.9, respectively), but, with these exceptions, is the lowest one recorded since 1906, the first year for which deaths from this cause were reported separately.

Deaths from automobile accidents and injuries in 1916 totaled 5,193, or 7.3 per 100,000 population. As might be expected, in view of the enormous increase in the number of automobiles in use, the death rate due to these causes has advanced continuously since 1906—the first year in which they were reported separately—when it stood at 0.4 per 100,000 population.

Deaths resulting from street car accidents in 1916 numbered 1,775, or 2.5 per 100,000. This rate is the same as that for 1914, but shows an increase as compared with 1915. During the past ten years, however, there has been a material falling off in the rate for this cause.

Machinery accidents caused 1,624 deaths in 1916, or 2.3 per 100,000 population, this rate being somewhat greater than those for the preceding two years—1.9 for 1915 and 2 for 1914.

The number of deaths from mine accidents and injuries in the registration area in 1916 was 2,119, corresponding to a rate of three per 100,000. The deaths from these accidents for the last three years show a material decline as compared with those for the preceding ten years.

There were 2,056 deaths in 1916 from the effects of heat, the rate being 2.9 per 100,000 population. This is the highest

rate shown for this cause in the last fifteen years, with the exception of that for 1911, which was 5.3.

SUICIDE.

The number of suicides reported for 1916 was 10,162, or 14.2 per 100,000. This rate is the lowest for the past ten years.

DEATHS CAUSED BY FIREARMS.

The total number of deaths due to the use of firearms in the registration area in 1916 was 8,240, corresponding to a rate of 11.5 per 100,000. Of these deaths, 3,386 were suicidal, 3,241 were homicidal, and 1,613 were accidental. The suicidal use of firearms shows a decline as compared with 1915 and 1914; their homicidal use decreased as compared with 1914, but increased as compared with 1910, 1911, 1912, and 1915, and the rate was the same as for 1913; and the frequency of accidental deaths due to their use shows a slight decline during recent years.

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Home-Canned Food Safe.

The United States Department of Agriculture has issued the following statement prepared by the bacteriologists of its Bureau of Chemistry and the States Relations Service:

"There is no danger that the type of food poisoning known as 'Botulism' will result from eating fruits or vegetables which have been canned by any of the methods recommended by the United States Department of Agriculture, provided such directions have been followed carefully. It is possible that in a number of instances the directions were not strictly followed and that spoilage has occurred. Of course, extreme care should be taken to ascertain before eating canned goods of any kind whether they are in good condition, and if they have spoiled they should not be consumed.

"In case of any doubt as to whether the contents of a particular can have spoiled, the safest plan is to throw it away, although all danger of Botulism may be avoided by boiling the contents of the can for a few minutes, since the bacillus botulinus and the toxin or poison which it produces are killed by such treatment. No canned food of any kind which shows any signs of spoilage should ever be eaten. In the cold pack method of canning given out by the Department of Agriculture, only fresh vegetables are recommended for canning, and sterilization is accomplished by the following processes: Cleansing, blanching, cold dipping, packing in clean hot jars, adding boiling water, sealing immediately, and then sterilizing the sealed jars at a minimum temperature of 212 degrees Fahrenheit for one to four hours, according to the character of the material. Since the spores of B. botulinus are killed by heating for one hour at 175 degrees Fahrenheit (according to Jordan's 'Bacteriology' and other recognized textbooks) there is no reason to believe that the botulinus organism will survive such treatment."

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Warning Against Medicine Fraud.

Imposters posing as federal employes are trying to sell rheumatism and other "cures" which they represent to the gullible as being made by the United States Government, is a warning issued recently by the Bureau of Chemistry, United States Department of Agriculture. Letters received from residents of Minnesota and South Dakota tell of such misrepresentations by agents of the "United States Medical Dispensary" or "Dr. Henry Post," Washington. D. C. The packages and labels guaranteed for $20 "cures" for various ailments but failed to give any address of those who are to refund. Federal inspectors have been unable to locate any such concern or doctor in Washington or elsewhere.

The label contains a serial number and states that the "product" is "guaranteed by Dr. Post under the national pure food and drugs act of June 30, 1906." The number given is that assigned to a concern which has never made such a product and has no connection with Dr. Post or a Dr. George Lawrence of South Dakota, who, according to a correspondent, represented himself as both Dr. Post's agent and an employe of the United States Government.

The department's inspectors can not find

that the product is being shipped in interstate commerce, which would bring it under the Food and Drugs Act, and are of the opinion that the agents carry it personally to escape detection by the federal authorities. The department therefore has brought the matter to the attention of various state and city food and drug officials with the view of securing their cooperation in detecting and preventing such fraudulent practices.

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Clinical Data on "Dichloramine-T."

The Official Bulletin of the United States Government, published daily under order of the President by the Committee on Public Information, states, in the issue of October 31, 1917: "Many matters of importance touching upon American cooperative effort and activity along medical and surgical lines were developed during the past week in Chicago, when the general medical board and the States Activities committee of the medical section of the Council of National Defense held stated meetings in conjunction with the annual meeting of the Clinical Congress of Surgeons of North America.

"Addresses were made by Dr. Edward Martin, Dr. E. K. Dunham and Dr. W. E. Lee, all of Philadelphia.

"By means of a moving-picture demonstration and the detailing of experimental and clinical data, they showed how much could be done for clean wound healing by the new antiseptic, Dichloramine-T, which is being investigated under instructions from the Surgeon General's office."

Dr. W. E. Lee, of the Pennsylvania Hospital, reported 7,288 surgical cases in which "Dichloramine-T" was used with remarkable results. He also reported twelve hundred war wounds treated in France with "Dichloramine-T" with 99.5 per cent recoveries and no secondary hemorrhages.

"Dichloramine-T" is used as an oil spray for nasal and throat work to destroy the microorganisms of diphtheria, meningitis, and other diseases. It is also used as a spray for surface wounds and burns and is poured into deep wounds, thus doing away with intermittent or continuous irrigation and frequent changes in expensive dressings.

Literature on "Dichloramine-T" may be obtained from the manufacturers of this product, the Abbott Laboratories, Chicago.

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"Meatless days" and the oft repeated warnings that economy in food is necessary to win the war, has called attention to a meat substitute invented some years ago by Dr. J. H. Kellogg, superintendent of the Battle Creek Sanitarium. The suggestion came from the Department of Agriculture at Washington, in protose, a purely vegetable compound, Dr. Kellogg combined the qualifications which he regarded as essential in a food which could satisfactorily replace meat. It contains none of the parasited or putrefactive germs harbored by meat; it is made to resemble potted meat in its physical aspects; it is palatable and chemically is a reproduction of meat; furthermore, in large quantities it can be placed on the market at a lower price than the product which it is meant to displace. Each year sees a lessening of the herds, droves and flocks of the country, and the war has greatly accelerated the movement. The housewife will therefore welcome such an article as protose, which will lessen or end her dependence on the butcher.

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Functional Tests in Chronic Nephritis.

Christian discusses in the International Clinics the various tests to determine the functional capacity of the kidney, normally the phthalien output, blood, urea, nitrogen, index of urea, excretion and specific gravity of urine.

The last mentioned is a simple means of determining the functional capacity of the kidney. The kidney normally accommodates itself to different kinds of urea complexes by excreting a more or less concentrated urine, a urine which pretty closely parallels the fluid intake. If, however, the kidney is injured it does not accommodate itself so well and does not accommodate itself so promptly, so that curves repre-

senting the specific gravity taken every two hours instead of showing marked variations flatten out in proportion as the kidney is diseased.

Christian believes that the functional tests are useful in determining prognosis, and, to a certain extent treatment, and in some cases diagnosis, when there is a question of early nephritis, but they are mainly helpful from the point of view of prognosis.

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Vaccine Therapy.

Joseph L. Miller, Chicago (Journal A. M. A., Sept. 8, 1917), reviews the literature of vaccine therapy and gives the arguments and facts bearing on its nonspecific character, following with his own experience in 130 cases of arthritis using typhoid vaccine chiefly. In the majority of cases benefit was obtained and was in some cases quite striking. The disease varied from simple acute and subacute arthritis to severe and chronic cases. The chief difficulty, he says, in this form of therapy is the violence of the reaction and an important question is the relation of this reaction to the beneficial results of the foreign protein. The nature of the reaction has not been determined and it may be due solely to the temperature reaction and the various agencies of immunity excited by it. It is too early to state whether it is going to be a regular therapeutic procedure but it would seem that it cannot be entirely discarded. The chief objection to it is the danger of grave or fatal reaction. Carelessness must be specially guarded against. It must be considered still in the experimental stage and not generally employed without careful consideration of the possible dangers. If used the toxicity of the particular vaccine must be determined and the patient carefully searched for cardiovascular pathologic conditions.

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